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EXHIBITION OF CONTEMPORARY AMERICAN INDUSTRIAL ART: 1934  
VIEW LOOKING EAST

DECEMBER ISSUE IN TWO SECTIONS—SECTION I

BULLETIN OF THE  
METROPOLITAN MUSEUM OF ART

DECEMBER, 1934

VOLUME XXIX, NUMBER 12

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MUSEUM CONCERTS

The free concerts which have been given in the Museum, under the direction of David Mannes, on eight Saturday evenings in January and March each winter since 1919 will be repeated during the coming winter. The four concerts to be given in January, 1935, are made possible through a contribution from the Davison Fund, Incorporated, founded by John D. Rockefeller, Jr. Contributions for concerts in March have already been promised by George Blumenthal, Edward S. Harkness, and John A. Roebling.

BRYSON BURROUGHS  
1869-1934

At a meeting of the Board of Trustees of The Metropolitan Museum of Art held November 19 the following minute was adopted:

Bryson Burroughs, Curator of Paintings, died at his home in New York City on November 16, 1934. Mr. Burroughs has served the Museum with distinguished knowledge, judgment, and taste from his coming to the Museum in 1906, first as Assistant Curator of Paintings and from 1909 to 1934 as Curator of the Department. During these years the department has greatly increased in importance; it reflects in its development his wise counsel and understanding, in its exhibitions his skill, and in its publications his sound critical scholarship.

The Trustees, by this minute, desire to record their appreciation of the importance of this service and their sense of the loss the institution has sustained.

AN APPRECIATION

The following editorial by Royal Cortissoz is reprinted from the New York Herald Tribune of November 18, 1934:

"The Metropolitan Museum and the public at large have suffered a grave loss in the death of Bryson Burroughs. As curator of paintings he was one of the most useful men who have ever served the cause of art in this city. He was useful not only because he was expert in all the details of his work, the care and installation of pictures, their cataloging and so on, but because he loved his subject and brought to his dealings with it an enkindling spirit. It was the spirit of a true artist, bent upon the achievement of high things. Also it was the spirit of a man of mind, for whom a work of art signified both manual dexterity and brain stuff. It was no accident that his time of pupilage made him a disciple of Puvis de Chavannes. He gravitated naturally toward that reflective master.

"His own pictures, and he painted many, recalled Puvis in their restrained key of

color and in their imaginative drift. He cared most for themes drawn from pagan mythology, and his traffic with classical motives was touched by a suave romanticism and a quietly playful humor. Always imagination and scholarship were at work in him, accompanied by taste. The last special exhibition he organized at the museum, the beautiful landscape exhibition which carried through the summer just gone, was a perfect illustration of his administrative ability

effective because there was nothing dogmatic, nothing combative, about it. He was of gentleness all compact, expressing even his warmest enthusiasm in modest terms. He leaves behind him a tangible memorial of his talents in the condition and arrangement of the pictures at the museum and in the record of the exhibitions he framed there. To his many friends he leaves the affectionate recollection of a singularly fine and winning nature."



EXHIBITION OF CONTEMPORARY AMERICAN INDUSTRIAL ART: 1934  
VIEW LOOKING WEST

and of his flair. The walls showed how sound and how catholic was his judgment. The catalogue, with its characteristic introduction, showed how steeped he was both in the sentiment and the history of landscape painting.

"Bryson Burroughs was learned without pedantry, and his fidelity to the traditions of the past never kept him from participating in the progressivism which has marked developments at the museum. He advocated the purchase of paintings by the younger generation and was altogether a forward-looking man, the friend of modern American art as well as of the old masters. This liberalism of his was perhaps the more

## CONTEMPORARY AMERICAN INDUSTRIAL ART: 1934

NOTE BY THE CHAIRMAN OF THE  
CENTRAL GALLERY UNIT

The Central Gallery Unit consists of six rooms in two series of three each, on either side of a central public space. In determining the various rooms one side was conceived as connecting elements of a small house, consisting of a sun porch designed by Archibald Manning Brown, a living room with fireplace by William Lescaze, and a dining alcove by Eugene Schoen. The opposite side represents rooms in an average apartment: a young woman's room designed

by Eliel Saarinen, a living room without fireplace by John Wellborn Root, and a bedroom by Ralph T. Walker.

The designer for each of these rooms is an architect, as is the group coördinator, or chairman. All collaborated in planning the ensemble and each designed the elements within the space allotted to him. The scheme illustrates, if you will, the breadth of the architect's training in that it enables him to create and design in many different mediums. It also illustrates the community of all design, whether it be the room itself or the rug on the floor, the table or a spoon on the table. Each class of objects has its own special problems inherent in materials and use. All are united in a common parentage as to their creation in that all are problems in design of function, composition, accent, texture, and color relation.

The architect's opportunity to work in different materials and articles, whether of use or decoration, is the source at once of one of his main values and of his greatest pleasures. For this reason, as well as for the honor and glory, he is willing to contribute freely of his time and effort to such an undertaking as this display of Contemporary American Industrial Art.

The Coöperating Committee agreed that in contradistinction to the exhibition held in the lush period of five years ago, this one was to show what might be achieved at a low cost. As a gauge it was felt that any article put into mass production must be within the digestive capacity of the pocket-books of those who paid on an average of say twenty dollars per room per month. While we may still "love the garish day" we welcome any opportunity to try to create a fine thing in a simple manner.

ARTHUR LOOMIS HARMON.

#### NOTE BY THE CHAIRMAN OF THE EAST GALLERY UNIT

Is industrial art a special field, a distinct technique, or is it merely a consequence of contemporary art movements, a sort of reflection of works created without special concern for their commercial or industrial possibilities?

Such an inquiry reminds one of the age-old controversy between those claiming

that an art is what the personality of a few great artists make it and those who claim that any artist, whatever his genius, is conditioned by surrounding society. The present exhibition of American Industrial Art will probably afford arguments for both views. It shows undoubtedly an effort to use only those materials and forms which can be reproduced economically and *en série* by craftsmen of average skill. In the East Gallery, Walter Dorwin Teague, Lee Simonson and Raymond Loewy, Gilbert Rohde, and V. F. von Lossberg, among others, have successfully conformed to this requisite. They, however, had shown elsewhere no less skill in the use of the most elaborate craftsmanship. Their ability to supply the buyer of moderate means with well-designed objects or furniture comes from a familiarity with the highest types of decorative art rather than from setting themselves a purely economical goal. Then, instead of grouping designers in either a "de luxe" or an "industrial" class, the old way of distinguishing between the "good" and the "not so good" designers would do well enough. "Qui peut le plus peut le moins," runs an old French saying, and the manufacturer in quest of ideas who addresses himself to second-rate men as more likely to solve his problems is not on the right track.

Of the East Gallery as a room little can be said. It attempts to be as unobtrusive as possible, discretion being, in this case, the better part of valor. To let each of half a dozen or more exhibitors have a space distinct from that of the next man, while keeping some kind of unity in the room, is the best that can be hoped for. In any exhibition, the principal difficulty is always this interrelation. When it is achieved, the architect may be satisfied to let the exhibits speak for themselves.

PAUL PHILIPPE CRET.

#### NOTE BY THE CHAIRMAN OF THE WEST GALLERY UNIT

Five years ago the Metropolitan Museum held an exhibition of contemporary American design. Some of us who worked on that exhibition again coöperated in the exhibition of 1934.

In 1929 all of us were busy, very busy.



Architects, builders, manufacturers, designers of every variety had much to do; costs were secondary, and there was constantly in evidence a desire to produce beautiful things, even things that were a little startling and of a luxurious nature. In 1934 the picture is different. Those of us who assisted in arranging exhibits have realized that the demand for the precious, elaborate, and individual article is restricted, and have searched for material adapted to production in quantity and at a price that would make any of the objects shown available to a large group of people. Present conditions have made it reasonable for the directing group to do more of the work themselves, instead of delegating it to subordinates, as would be natural under the pressure of normal routine.

Another curious factor in the 1929 situation was the requirement that articles should be not reproductions but original designs. In 1934 no such insistence has been necessary, since our designers and manufacturers have taken for granted that new forms should be presented. It is interesting also that the bizarre version of what may be labeled "modern design" has eliminated itself and that there has appeared a serious group of forms which seem to carry through a reasonably even standard of performance. The fact that museum collections may act as sources of inspiration rather than as models for copying seems to be recognized. The realization of these facts indicates progress.

In the West Gallery Unit, apart from the spaces allocated to individual designers, an effort has been made to gather together a collection of modern textiles effective chiefly because of their texture. Many groups of fabrics were investigated, the ones selected being those which presented the most original weaves or printed patterns. The next five-year period may see other groups joining the movement toward better design.

It is a pleasure to mention here the helpful coöperation of my collaborators in the West Gallery Unit, Donald Deskey, Walter W. Kantack, Joseph Lotto, Walter von Nessen, and Irvin L. Scott.

ELY JACQUES KAHN.

## A SCULPTURE BY J. B. LEMOYNE

A recently discovered portrait bust in white marble by the noted French sculptor Jean Baptiste Lemoyne (1704-1778) has been purchased by the Museum and may be seen this month in the Room of Recent Accessions.<sup>1</sup> It is a portrait of Félicité Sophie de Lannion, duchesse de la Rochefoucauld, and is signed by the sculptor and dated 1774. The bust came to light not long since in the château de Liancourt near Beauvais, which for generations has been a property of the Rochefoucauld family. Until then, as Louis Réau, the biographer of Lemoyne, has pointed out, the existence of the bust was unknown to historians of French art.<sup>2</sup>

Mademoiselle de Lannion was born on October 19, 1745, the daughter of Hyacinthe Gaëtan, comte de Lannion, and Marie Charlotte Félicité de Clermont-Tonnerre. She was, therefore, twenty-nine years old when Lemoyne executed her portrait. Ten years previously, in 1764, she had been married to François Alexandre Frédéric, duc de Liancourt, afterwards duc de la Rochefoucauld and d'Estissac.

Together with Lemoyne's busts of Mademoiselle de Lorraine and Madame Victoire de France (1775), of Claude de Ferrière (1776), and of the duchesse d'Harcourt (1777), the bust of Madame de la Rochefoucauld may be regarded as one of the sculptor's last essays in the field of portraiture, having been executed when he was already seventy years old. In this connection it is all the more remarkable in that there is no sign of diminishing power, no decrease in the artist's capacity for sensitive modeling. If the bust were not dated, it would indeed be rash to assign it to the sculptor's final years.

True it is that, as compared with some of Lemoyne's earlier works, there is a lack of flourish in his portrait of the young duchess. This, however, may be largely if not wholly traced to the almost austere

<sup>1</sup> Acc. no. 34.91. Rogers Fund.

<sup>2</sup> Louis Réau, *An Unknown Masterpiece of Jean-Baptiste Lemoyne* (ms. on file in the Museum Library).

simplicity of the drapery. The fashionable, theatrically swirling draperies in the baroque tradition, which had been popular in portrait sculpture since the days of Bernini, had the advantage of adding verve to the composition, the disadvantage of distracting attention from the face and thus confusing the issue. In Lemoyne's bust the drapery has been designed in a spirit of quiet economy reminiscent of the classical. We are happily, therefore, able to give undivided attention to the delicately modeled head with its characteristic coiffure.

Long since assigned to his rightful place among the great French portrait sculptors of the eighteenth century, Lemoyne belongs to one of those extraordinary dynasties of artists whose members have played so important a part in the development of French art. His father, Jean Louis Lemoyne (1665-1755), was a sculptor of note; his mother, a daughter of the flower painter Jean Baptiste Monnoyer. His grandfather, Jean Lemoyne (1638-1713), a celebrated designer of ornament, had married a daughter of the Bordelais painter, Antoine Leblond de la Tour. His great-grandfather, Louis Lemoyne (about 1600-1660), is believed to have been a sculptor and is known to have espoused a daughter of the sculptor Simon Guillain. His uncle, Jean Baptiste Lemoyne (1679-1731) was also a sculptor, although of no particular distinction. Obviously heritage played an exceptional rôle in the formation of Jean Baptiste Lemoyne's artistic personality.

Lemoyne's training was, in contrast to the custom of the day, wholly French, his masters being his father and Robert Le Lorrain, whose career was so closely linked to the Rohan family. In 1725 he won the first prize in sculpture, which carried with it the privilege of studying at the French Academy in Rome. But he was prevented from taking advantage of this by domestic troubles, and his entire life, with the exception of brief sojourns, was spent in Paris. He was received into the Academy in 1728 and ended by being made its director in 1768 in succession to the painter François Boucher.

Although engaged at various times in his career on monumental projects, it is with

his splendid series of portrait busts that Lemoyne's fame rests secure. In this respect he belongs to that distinguished group which includes Houdon, Pigalle, Caffieri, and Pajou, the last named being Lemoyne's own pupil. His portraits are characterized by directness and lack of affectation and combine with sympathetic understanding of the sitters an unobtrusive and dignified idealism. Less intense and vibrant than Houdon, Lemoyne nevertheless succeeded in imparting to his portraits an unusual degree of life. And in this respect the portrait of Madame de la Rochefoucauld is no exception to the rule. The Museum is fortunate in acquiring so fine an example of Lemoyne's work.

PRESTON REMINGTON.

#### SUNG POTTERY FROM THE SHEPARD K. DE FOREST COLLECTION

For over a decade the Museum has had as distinguished loans a number of fine pieces of Sung pottery from the collection of the late Shepard K. de Forest and Mrs. de Forest. Owing to the dispersal of this carefully selected group, it has recently been our privilege to purchase fifteen pieces<sup>1</sup>—twelve of the type known as Lung Ch'üan celadons and three of *ying ch'ing* ware. This brings the Museum collection of Lung Ch'üan celadons to a total of twenty pieces (not including a magnificent vase on loan from Mrs. Samuel T. Peters), a group which is rivaled only by the collection of Sir Percival David in London. We do not know exactly the extent of the collection of Lung Ch'üan celadons in the Top Kapu Seraï (the old palace) in Istanbul, but Mr. Bosch Reitz in notes made for Mrs. de Forest spoke of this Sung ware as "a small number of very choice pieces, mostly vases." Aside from several pieces in Japan which should be mentioned specifically because of their superb quality, the rest of the Lung Ch'üan celadons are sparsely scattered by twos and threes throughout China and in shops, private collections, and museums of the West.

<sup>1</sup> Acc. nos. 34.113.1-15. Fletcher Fund. Shown this month in the Room of Recent Accessions.



FÉLICITÉ SOPHIE, DUCHESSE DE LA ROCHEFOUCAULD  
BY JEAN BAPTISTE LEMOYNE

and they would probably total little more than the sum of the collections mentioned. Even more rare than the Lung Ch'üan celadons is the *ying ch'ing* ware, and the three examples from the de Forest Collection, probably the most distinctive types ever seen in this ware, give us a total of seven pieces.

Mr. de Forest was a pioneer collector of Lung Ch'üan and *ying ch'ing* potteries,

been available either in China or in the West. Mr. Hobson's exhaustive book, *Chinese Pottery and Porcelains* (published in 1915), included a cautious chapter on the Lung Ch'üan ware but almost nothing about the *ying ch'ing*. In spite of this serious handicap Mr. de Forest managed to assemble a collection of Lung Ch'üan celadons which until recently has been absolutely unique in both extent and quality.



FIG. 1. JAR WITH PEONY DECORATION  
LUNG CH'ÜAN CELADON, SUNG DYNASTY

which first began to come on the Western market in 1914 or 1915 from newly discovered tombs in China. The supply was very limited and by 1919 was completely exhausted. During this period Mr. and Mrs. de Forest devoted themselves to the acquisition and study of these rare and comparatively unknown potteries. They had to depend largely on descriptions translated from Chinese encyclopaedias and literary sources and the assistance of two or three Western scholars interested in ceramics, the latter having almost nothing to work from since the actual wares had not up to this time

The studies of this ware published during the last ten or twelve years<sup>2</sup> have brought to light a great deal of new and valuable material but have left many important points still in the conjectural stage. Lung Ch'üan, from which the ware derives its name, is a town in the southwest of Chekiang province. The originator of the pottery was the younger of two brothers named

<sup>2</sup> A. L. Hetherington, *The Early Ceramic Wares of China* (London, 1922); R. L. Hobson, *A Catalogue of Chinese Pottery and Porcelain in the Collection of Sir Percival David, Bt., F.S.A.* (London, 1934).

Chang, the elder being famous for his manufacture of Ko porcelain. The base of the celadons produced by the younger Chang was a paste of whitish or stone-gray color. Where the paste was exposed to the heat of the kiln without glaze protection, that is, on the foot and sometimes on the lip, it shows a red or brownish tone due to

glaze before its application, and the greens by adding ferruginous clay, although the presence of iron in the paste itself may have assisted in producing the green color. Whatever the shade, the rich soft texture of the glaze was always constant, and this texture the later potters of China have never been able to imitate successfully. The Sung cela-



FIG. 2. JAR WITH DRAGON DECORATION  
LUNG CH'ÜAN CELADON, SUNG DYNASTY

the oxidation of the iron in the clay. The glaze on the Sung celadons varies in color from pale blue through shades of green to gray. The soft sea green is generally conceded to be the most pleasing from an artistic point of view, and this was the shade Chang the Younger strove to achieve. Judged by monetary values, the blue tone is apparently the most sought after, and we find this color on the celebrated pieces in Japan. The blue tones were probably produced by adding a trace of cobalt to the

dons are charmingly simple in form and are of such sturdy construction that they have survived through the centuries with much less damage than is usual with early wares. Many of them are decorated with great effectiveness, but frequently we find pieces which depend for their beauty on glaze and shape alone, sometimes with a controlled crackle in the glaze. The different kinds of decoration employed will be noted in the discussion of specific pieces.

In grouping the celadons by color, it



must be remembered that the classification is approximate only, since no two pieces appear to be exactly the same shade when standing side by side. Eight pieces of the collection are sea green; two belong to the blue-green classification, though with a good bit of variation of shade; and the two remaining pieces go off into gray-green in one instance and an unusual olive brown in the other. Especially striking in the sea-green group are two covered jars (one illustrated in fig. 2), each with a dragon modeled in high relief under the glaze around the shoulder. The lower body of each jar has a fluted design molded under the glaze and as handles on the lids are modeled amusing little figures, one a reclining dog and the other a flying bird. The decoration on these jars is probably as elaborate as any to be found on Sung celadons, but it is properly restrained and confined to its recognized function, that of enhancing the glaze. Another covered jar (illustrated in fig. 1) has peony scrolls molded in low relief under the glaze. A slight crackle in the glaze adds variety to the decoration, as does the spot-tiness of the green caused by an uneven accumulation of the glaze here and there over the molded decoration. An incense burner with three feet also has a floral design modeled in relief under the glaze, but here the color is slightly muddy and in places is heavily marked with brown, probably through imperfect firing. A small dish with twin fish molded in relief in the bottom is a favorite type, but so far as the design is concerned it is more piquant than impressive. Two fluted bowls with gilded rims are charming pieces and although not actually a pair as to size are identical in pattern. The last of the sea-green group is a lovely little pear-shaped jar with a wide mouth, the glaze beautifully crackled and the color soft and even.

One of the blue-green examples is a so-called chrysanthemum bowl in which the fluted decoration, molded in relief under the glaze, represents the petals of a chrysanthemum. The other of this group is a small bottle-shaped vase which has a little more brown in it than the chrysanthemum bowl but is still definitely blue in tone. The lip has been repaired with gold lacquer in

the manner of many of the early potteries, and the repairs, far from detracting from the beauty of the piece, actually enhance it.

The gray-green gallipot has a floral design with meander borders molded and incised under the glaze. The color of this piece does not entirely measure up to the Sung standard, and we feel constrained to give it a Yüan date, at least for the present.

Last of the celadons is a small olive-brown dish with the twin-fish design molded in relief in the bottom. This color is most unusual among Sung celadons, and we hope some time to find other examples to keep it company.

We come now to the three pieces known as *ying ch'ing* ware. A general discussion of the origin of this type of pottery must be limited for lack of authentic information and, however brief, must still be largely conjectural. Theories have been brought forth from time to time that it belongs to the type of pottery known as Ju, a ware made at Ju Chou in Honan of which no positively identified examples have survived. None of the available descriptions of this ware seem to fit the type popularly known as *ying ch'ing* (shadowy blue). On the other hand, there is a type of Sung pottery known from literary sources as Ch'ai yao which as described would appear to be very like the *ying ch'ing* ware, if not identical. This was made at K'ai-feng Fu, or Chêng Chou, in the province of Honan and got its name from the family name of the Emperor Shih Tsung, the last of the Five Dynasties emperors, so that if our theory is correct the *ying ch'ing* ware is just a shade earlier than Sung. In the T'ao Shuo the Ch'ai yao is described "as blue as the sky after rain, as clear as a mirror, as thin as paper, and as resonant as a musical stone of jade." More practical descriptions of the ware from Chinese sources say that it has a translucent, white sugary body and a bluish white glaze tending to a more pronounced blue in the indentations. Since these descriptions come so close to the *ying ch'ing* and do not fit any other known type of Sung pottery, we offer this possibility for further study.

The pair of *ying ch'ing* incense burners, which are in the form of lotus blossoms and



FIG. 3. TRIPOD INCENSE BURNER OF EARLY BRONZE DESIGN AND A PAIR OF LOTUS-FLOWER INCENSE BURNERS WITH LION TOPS. YING CH'ING POTTERY, SUNG DYNASTY

have lion covers, are so far as we know the only ones of this type in existence. The elaborately curled manes and tails of the lions are beautifully modeled and carved, and the designs on the lotus bases are molded under the glaze. A tripod incense burner of the same ware is patterned after early bronze vessels, both in shape and in decoration. The loose ring handles are joined to the piece by animal-head motives, and the main body is decorated with dragon, palmette, and volute motives molded and incised under the glaze. These three pieces (fig. 3) have had a distinguished history during the last quarter of a century, having come into Mr. de Forest's possession from the collection of the late J. Pierpont Morgan.

PAULINE SIMMONS.

### A SHIELD OF HENRY II OF FRANCE

The embossed parade shield of Henry II of France (fig. 1) is a prominent addition to the Museum's collection of armor.<sup>1</sup> It was carried in state processions which took place amid the ringing of church bells and the firing of cannon—probably gracing the arm of Henry himself when he rode forth clad in velvet and mounted on a spirited horse decked in silk trappings, as Clouet painted him. Its richness added to the glamour that surrounded a triumphant soldier.

The king evidently wished to commemorate some victory over the infidel, for the central area of the shield depicts a battle between Oriental and Occidental armies in which infantry, artillery, and cavalry took part (fig. 3). The figures in the foreground are embossed in high relief. The whole is inclosed by an elaborate border which is divided by strapwork into areas featuring motives in high relief. Trophies of armor alternating with swags of fruit occupy the vertical spaces, and above and below the central scene are horned masks of a man and a woman. Displayed so prominently upon a shield of victory, these figures are probably symbolical of chivalrous honor. On either side of the masks are bound cap-

<sup>1</sup> Acc. no. 34.85. Dick Fund.

tives, embossed with careful regard to anatomical details (fig. 2). The strapwork is damascened in gold with a repeat pattern of cartouches inclosing motives in silver inlay—crescents, the initial H with a crescent on each side of the bar, and the initial H interlaced with two ambiguous letters, C or D (the well-known monogram in which one might read Catherine or suspect Diane).

Originally the surface of the shield showed a variety of colored metals, but it has been changed to a lifeless lead color by the irresponsible use of acid. The reliefs were emphasized by the use of a contrasting stippled background, probably gilded.

The shield, although a parade piece, is the work of an armorer rather than of a goldsmith. The metal is heavy, varies in thickness from  $1/32$  to  $3/16$  of an inch, registers the hardness of cold-worked steel, and weighs practically seven pounds. The embossing required an exact hand, the chasing and damascening skill and patience, and the hardness and thickness of the metal itself were instrumental in effecting the bold character of the ensemble. Many of the details, however, remind one of the small bronzes executed by Renaissance goldsmiths. A comparison of the work of the armorer and the goldsmith may be seen in two shields in the Louvre, both similar in general design to our shield. One, bearing the cipher of Henry II, is in steel, the other, bearing the initial K (Karolus) for Charles IX of France, in solid gold and enamel.<sup>2</sup>

The present shield has hitherto been unrecorded in the literature of armor.<sup>3</sup> It was sold at Paris (16 rue des Jeuneurs) on March 7, 1846, as lot 85 of the collection of the deceased M. Fierard. It came to the Museum from a local antiquary who acquired it from the duc de Cambacères, a descendant of the Second Consul during the French Consulate.

<sup>2</sup> For related parade shields, see Sir Guy Lakington, *A Record of European Armour and Arms*, vol. IV, pp. 246-259, and Charles Buttin, *Genève, Bulletin du Musée d'art et d'histoire de Genève*, vol. II (1924), pp. 225-240.

<sup>3</sup> Casts of our shield have been made, however, and a wrought-iron copy of it was shown in the Hungarian Military Exhibition in Budapest in 1896 and illustrated in the official catalogue (no. 3394).



FIG. 1. A SHIELD OF HENRY II OF FRANCE

The shield is related to a group of embossed objects exhibited in European national museums which are considered to have been made at Paris in the Louvre ateliers for the French kings. The nationality of the artists who designed and executed these pieces has not yet been defi-



FIG. 2. DETAIL OF MASKS AND  
BOUND CAPTIVES ABOVE AND  
BELOW THE CENTRAL AREA

nately established, but they have been claimed enthusiastically for France, Germany, and Italy. We have the court chronicler Brantôme for our authority that the French armorers were unable to compete with the Italian in gilding, chiseling, embossing, and inlaying. Also in favor of Italian workmanship is the fact that there was a tradition among the French kings concerning the merit of Milanese armorers. Thomas of Milan, probably Tommaso Missaglia, was in the service of Louis XI. It was Philip de Negroli who made the helmet in this Museum ascribed to Francis I.

Guidobaldo II, Duke of Urbino, recommended his armorer Bartolomeo Campi to Henry II, and the brothers de Gambres, César and Baptiste, embossed and damascened armor for Henry II at Paris from 1548 to 1557. Furthermore, both Francis I and Henry II claimed Milan, the greatest armor-making center of Europe, a condition which would certainly have led them to choose armorers from that city rather than from Germany.

A German attribution for this group of embossed armor has been advanced on the basis of a comparison with the embossed harnesses in the Dresdner Rüstkammer of the Electors Christian II and Johann Georg of Saxony, which the Nuremberg goldsmith, Heinrich Cnoep, delivered in 1604 and in 1606. The evidence in favor of such an attribution, however, is not very strong, for although the ornament of these harnesses is of the same general type as that of the group to which our shield belongs, this fact in itself proves nothing, as styles in ornament were international. Moreover, the embossing is different in character, and etching is used instead of damascening in the decoration of the harnesses.

The original design (fig. 4) of our shield is one of a series of armor designs in the Staatliche graphische Sammlung in Munich.<sup>4</sup> There is no question that these drawings are patterns and not sketches from existing objects, for in some instances the right and left halves are essentially different, indicating a choice between two symmetrical designs. In other instances half of the design is given, with the addition of possible substitutions for the other side. The drawings show at least two styles. In the first, the surface is covered with running ornament, mascarons, trophies, and allegorical figures; in the second, to which the design of our shield belongs, similar motives are inclosed by boldly intertwined strapwork. Definite determination of the master responsible for these designs would be an important contribution not only to the study of armor

<sup>4</sup> J. H. von Hefner-Alteneck, *Original-Zeichnungen deutscher Meister des sechzehnten Jahrhunderts zu ausgeführten Kunstwerken für Könige von Frankreich und Spanien und andere Fürsten*, pl. 9, fig. A. Frankfurt on the Main, 1889.



but to the study of ornament as well. The designs are Italian in spirit, but at this period all the small masters, French, German, or Italian, copied from and inspired one another. Examination of French designs discloses no valid reason for concluding that our shield could not be French.

which is the subject of this note. The designs for the embossed harness of Bernhard von Weimar from the ducal collection in Weimar and now in a private collection in New York, and for the embossed harness of Emperor Rudolph II in the Kunsthistorisches Museum, Vienna, are also among the



FIG. 3. DETAIL OF THE CENTRAL AREA

That such work was being executed by Frenchmen is indicated clearly by the existence in the Bremen Kunsthalle of a design for an embossed saddle pommel by Jean Delaune, who followed the style of his more distinguished father, Étienne.

It is fortunate that these original drawings have been preserved, as they served as patterns for a number of examples of embossed armor generally conceded to have been made for French royalty. Two specimens of this group are a round shield bearing the arms of France (in the Wallace Collection in London; no. 661) and the shield

Munich drawings. The tradition concerning Bernhard von Weimar's armor is that it was presented to that distinguished general by Louis XIII of France. The origin of Rudolph II's armor is unknown, but a Louvre provenance is plausible if one recalls that Rudolph's sister Elizabeth married Charles IX of France in 1570. A suit of armor was always an appropriate gift, and that Charles IX was generously inclined on this particular occasion is proved by his gift of the famous saltcellar of Benvenuto Cellini to the Archduke Ferdinand of Tyrol, who escorted his niece to France.

Henry II liked to dazzle with pageantry, perhaps less from artistic motives than from a desire to impress upon his subjects the splendor and the glory of the house of Valois. In the Museum, his shield, a reflection of French regal pomp and circumstance, is shown primarily as a work of art. It will



FIG. 4. ORIGINAL DESIGN FOR  
THE SHIELD OF HENRY II  
STAATLICHE GRAPHISCHE SAMMLUNG  
IN MUNICH

nevertheless have an added interest when it is placed on permanent exhibition in the Hall of the Princes (H 8) in the immediate neighborhood of a number of French historical pieces including the helmet of Francis I (father of Henry II) and the harnesses of two of the greatest commanders in French history, Galiot de Genouilhac, Grand Master of Artillery, and Anne de Montmorency, Constable of France.

STEPHEN V. GRANCAY.

## RECENT ACCESSIONS OF PERSIAN PAINTING AND ILLUMINATION

The Museum's collection of Islamic miniature painting and illumination has been augmented recently by three interesting specimens of the fifteenth and sixteenth centuries. One of them is a richly illuminated double title-page from a manuscript of Kazwini's *Marvels of Creation*, a work which was very popular in Persia during the fourteenth and fifteenth centuries.<sup>1</sup> In the center of each page, placed upon a rectangular field, is a medallion inscribed with the title of the work. Encircling the medallion of the left page are four Chinese kilns and a dragon fighting a phoenix; encircling that of the right page are two angels in clouds, an elephant attacked by a bird, and a unicorn. The beautiful border is of particular interest as it is decorated with delicate floral scrolls in blue and animal grotesques in gold. Such animal grotesques, which are derived from the Seljuk style of ornament, appear frequently in Persian illuminations and book covers of the fifteenth century. The color scheme of our double page is in liquid gold in two shades—green and yellow gold—and blue, with touches of red, green, and white. Gold, outlined in black, predominates as in other early fifteenth-century illuminations—for instance the magnificent *Anthology of 1410* now in the Gulbenkian Collection in Paris. The illuminations of this manuscript and of our double page reveal a technical skill and craftsmanship characteristic of the great Timurid schools of painting which flourished at Shiraz and Herat.

The miniature painting reproduced here is from a manuscript of Firdausi's *Shah-nama*, or *Book of Kings*.<sup>2</sup> It illustrates an episode from the life of Zal, the father of Rostam, Persia's greatest legendary hero. In our miniature the infant Zal, born with white hair, is presented to his father Sam, an Iranian paladin surrounded by his courtiers. As white hair was abhorred by the Iranians, Sam gives orders that the child be abandoned in a wilderness. There it was

<sup>1</sup> Acc. no. 34.109. Fletcher Fund.

<sup>2</sup> Acc. no. 34.72. Dick Fund.

found by a fantastic bird, the Simurgh, and carried off to the mountains. Years later the Simurgh restored Zal to his father. Our miniature is painted in the decorative style developed by Persian artists of the sixteenth century working at Tabriz at the court of the Safavid rulers. The rich polychromy of this miniature and the elegance of the figures are characteristic of the Safavid style of painting.

Persian artists of the fifteenth and sixteenth centuries often used wide borders in the decoration of manuscripts, and these

were generally painted in gold. Artists of the Safavid period, however, also used such methods of decoration as cutwork and stenciling. Both these techniques appear on a leaf acquired by the Museum.<sup>2</sup> One side of the leaf shows a silhouette design of a landscape with animals and birds cut out in buff paper and pasted on a blue ground. The border of the other side of the leaf has an effective design produced by stenciling landscape motives on a mottled blue background.

M. S. DIMAND.

<sup>2</sup> Acc. no. 34.49. Fletcher Fund.



BIRTH OF ZAL

MINIATURE FROM A MANUSCRIPT OF THE SHAH-NAMA  
PERSIAN, XVI CENTURY

## NOTES

**REPORT OF THE PERSIAN EXPEDITION.** Section II of this issue of the *BULLETIN* contains the report of the work done during the season 1933-1934 by the Museum's Persian Expedition at Kasr-i-Abu Nasr.

**THE STAFF.** Dr. Henry A. Carey, finding that his health will not permit residence in Egypt, has resigned from the staff of the Egyptian Expedition. G. M. Peek, who was a member of the expedition in 1924-1925, is taking Dr. Carey's place for the year.

**MEMBERSHIP.** At a meeting of the Board of Trustees, held November 19, 1934, the following persons, having qualified, were elected in their respective classes: **FELLOW IN PERPETUITY**, Miss Ruth Payne Burgess, in succession to Elisha Payne Jewett Burgess; **FELLOW FOR LIFE**, Mrs. Louis G. Myers; **SUSTAINING MEMBERS**, Mrs. C. E. Dawson, Mrs. Francis L. Dunham, Mrs. E. W. Leake. **ANNUAL MEMBERS** were elected to the number of twenty-six.

**JAPANESE COLOR PRINTS.** A new exhibit of Japanese color prints from our collection has been arranged in the corridor in the basement of Wing J. The selection ranges from early black-and-whites by Moronobu and Masanobu and hand-colored prints by Kiyonobu to more imposing prints of a later period by Yeishi, Shunshō, Shunchō, and Yeiri. Included also are a number of *suri-mono* (greeting cards for the New Year), containing humorous poems called *kyōka* with accompanying illustrative designs.

**AN EXHIBITION IN HONOR OF FIRDAUSI.** The Department of Near Eastern Art has arranged in Gallery E 14 a special exhibition of all the illuminated manuscripts and single miniatures relating to Firdausi's *Shah-nama* in the Museum collection—with the exception of three miniatures which

have been lent to Columbia University. The exhibition opened on November 10 as part of the celebration held in honor of the thousandth anniversary of the birth of the great Persian poet under the sponsorship of the University. It will be continued through January 1, 1935.

**MATTHEWS LECTURES ON GOTHIC ARCHITECTURE.** The Matthews Lectures on Gothic Architecture, a series endowed by a bequest of the late Charles T. Matthews to Columbia University, are being inaugurated during the present academic year by the University in the Lecture Hall of The Metropolitan Museum of Art. This winter's series of ten illustrated lectures will be given free to the public on Wednesdays at four o'clock, beginning on January 9. Professor Joseph Hudnut, Dean of the School of Architecture, Columbia University, who will conduct the course, will give a descriptive and analytical survey of Gothic cathedrals, treating their origin and their development in plan, structure, and decoration, from the eleventh to the fifteenth century. In addition, his lectures will include brief descriptions of civil and military architecture and of the decorative arts of glass-painting and sculpture.

**A BEQUEST OF FANS.** The Museum has recently received an interesting collection of twenty-four fans<sup>1</sup> as the bequest of Clara Legg Bucknall. Twenty-two are European, mainly French and of the nineteenth century; the two remaining are Chinese. Of especial note is a group of French printed fans made between 1815 and 1840, some of which bear the signatures of little-known French engravers such as Houiste and Nargeot. The leaves were engraved and then colored, constituting inexpensive counter-

<sup>1</sup> Acc. nos. 34.121.1-24. Shown this month in the Room of Recent Accessions.

parts of the costly painted leaves of the eighteenth century. Slightly later in date than the engraved fans are two fans which were lithographed and colored. This modern printing process supplanted engraving in the decoration of fans just as engraving had earlier taken the place of painting. Engraved fans are generally decorated with romantic subjects, which are often pleasantly naïve. Those produced by lithography frequently imitate eighteenth-century models.

J. G. P.

**A NEW SITE FOR THE EGYPTIAN EXPEDITION.** This winter the Museum's Egyptian Expedition will undertake work on a new concession, the site of the ancient city of Nekhen—better known by its Greek name Hierakonpolis. Although one of the few great towns known to have been intimately associated with the rise of the dynastic period and therefore of unequalled interest to the student of Egyptology, Hierakonpolis has been subjected to surprisingly little organized excavation.<sup>1</sup> The city was occupied steadily from prehistoric times until at least as late as the Twentieth Dynasty (roughly from 4000 to 1000 B.C.), but the majority of objects that have already come from the site date from the First to the Third Dynasty. It is hoped that the only serious gap in the Museum's Egyptian collection—the Third and Fourth Dynasties—may be reduced by excavation of the new territory.

**A THIRTEENTH-CENTURY BURGUNDIAN CAPITAL.** The Museum has recently purchased<sup>1</sup> a French Gothic limestone capital originally in the ruined priory church of Val-des-Choux in northern Burgundy. Although the capital has acquired a pleasantly mottled surface through exposure to the elements, its form has not been affected. It was no doubt formerly painted. The capital, which was engaged, is clustered, being composed of a half bell-shaped element and a small capital. It probably came from a pier

or a cul-de-lampe. Judging from the lines incised on the top, it supported the ribs of the vaulting.

The thirteenth-century architect was too preoccupied at first with the new structural problems of vaulting to give much thought to the interior decoration of his church. Consequently the architectural form of Gothic capitals of this period was emphasized and less attention was given to their ornament than in the Romanesque period. Gradually, however, as the Gothic architectural system became better established, the



CAPITAL, BURGUNDIAN  
XIII CENTURY

sculptors began to carve the capitals with leaves and plants until finally their surfaces were covered with exuberant growths. In this development our capital stands midway; its crisply cut leaves still cling to the bell of the capital without breaking the architectural silhouette.

A gift to the church of Val-des-Choux is recorded in 1259,<sup>2</sup> a fact which would indicate that the building was in existence then or at least under construction. Many other donations, some of them made by the Dukes of Burgundy, suggest the importance of this priory during the thirteenth century.

Although capitals similar in style to ours are still to be found in Burgundy, among them those of the church of Saint Pierre at St.-Père-sous-Vézelay, there are but few in museums.

W. H. F.

**EDUCATIONAL PROGRAM FROM JANUARY TO MARCH.** The pamphlet of Free Gallery Talks and Other Lectures to be given in the Museum by the Museum's educational staff and invited speakers during the months of January, February, and March will be

<sup>2</sup> E. Petit, *Histoire des ducs de Bourgogne*, vol. V, p. 177, document 3123. Dijon, 1894.

<sup>1</sup> Quibell worked there in 1897–1898 and 1898–1899; Garstang in 1905–1906.

<sup>2</sup> Acc. no. 34.124. Rogers Fund. H. 13 $\frac{1}{4}$  in.; w. 31 $\frac{3}{4}$  in. On exhibition this month in the Room of Recent Accessions.



issued this month. This pamphlet lists by day and hour all the three hundred talks and lectures for the period, with their subjects and the names of the speakers. It is sent to all Members of the Museum and may be had by others free on application.

The plan of these free gallery talks was worked out last summer and put into effect in October. The results of the new plan, by which free talks on the collections are given every day in the week except the two pay days (Mondays and Fridays), have been most gratifying. At the time of writing this note the schedule has been in effect seven weeks, and the attendance at the free public talks for adults has reached the number of 6,156, a figure which alone is sufficient to show both the success of the plan and the interest that it has aroused.

While extending the program of free talks for the public, the Museum has not been unmindful of the interests of its Members. Series of gallery talks planned especially for Members of the Museum will be given on the two pay days, the themes for consideration during this period being classical art, mediaeval art, Eastern art, painting in Florence and Bruges, American interiors, and elements of color. The children of Members have two opportunities for becoming acquainted with the Museum collections on Saturday mornings. The gallery talks for older children, given by Miss Freeman, continue the general theme, the art of the Middle Ages. The story hours for younger children, conducted by several story-tellers, include an interesting and varied group of titles. To the list of speakers has been added the name of Susan Scott Davis.

A GUIDE TO THE COLLECTIONS. With the publication this month of *A Guide to the Collections: Part II* the Museum will complete a new departure in the compilation of a general guidebook for the use of the average visitor. Patterned like its companion, *Part I*, which conducts the visitor through the collections of Ancient and Oriental Art, *Part II* takes the visitor through the collections of European and American Art in the Departments of Mediaeval Art, Renaissance and Modern Art, the Amer-

ican Wing, Arms and Armor, Paintings, and Prints. As in *Part I*, each section is prefaced with a brief historical survey of its field, a plan of its galleries, and a statement of the order in which they should be seen. Except for the largest galleries, each room is treated upon a separate page and its most important exhibit is represented by a photograph, so that the visitor is provided with an immediate means of identifying the principal pieces and at the same time is given a pictorial record of them. Other interesting items are identified by a system of numbers, and the text explains the significance of the selection. Additional aid is supplied by the notes, which indicate the best route to follow in proceeding through the rooms or direct the visitor to other galleries where he will find objects related in character to those just viewed.

The guide is convenient in size, compact in plan, adaptable in arrangement, helpfully selective to those who wish direction in choosing what to see, and comprehensive in explanation and remark.

HARMODIOS AND ARISTOGEITON. Visitors to our collection of casts of Greek sculpture will have noticed in Gallery B 36 the return of Harmodios and Aristogeiton after a long absence. They come back considerably changed, in those portions, at least, which are missing in the Naples statues and which were restored at random, so to speak, in the eighteenth century. Some years ago, it may be remembered, we reconstructed the right arm of Harmodios in accordance with the new evidence obtained from a replica of the head in this Museum which showed remnants of two supports.<sup>1</sup> The arm was brought further back than in the Naples restoration, with the hand and sword in close proximity to the head, as represented in copies of the statue on coins and vases. This position of the right arm imparted a new energy to the figure, so much so that the body seemed too straight and stiff, out of harmony with the intense action of the arm. It was clear that if the reconstruction of the arm was correct, the body must have

<sup>1</sup> Cf. BULLETIN, vol. XXIII (1928), pp. 30 f.; American Journal of Archaeology, vol. XXXII (1928), pp. 1-8.

leaned further forward, and this is indicated also by the representations on the coins of Kyzikos, where Harmodios and Aristogeiton lean forward at identical angles.

To impart this more oblique angle to Harmodios we had not only to tip the body forward but to reconstruct the legs in those portions which are restored in the Naples statue (the whole of the right leg and the left from below the knee). In this reconstruction<sup>2</sup> we copied the legs of Aristogeiton—which are ancient—in both direction and form, except for the adjustment necessitated by the reversed stance. Once em-

<sup>2</sup>Carried out by L. Schlesinger, head of the Museum molding shop. I am much indebted also to Paul Manship for valuable help and advice.

barked on the path of improvement we tried to remedy other faults in our previous restoration, changing somewhat the left arm, the thumb of the right hand, the direction of the sword; and we removed the disturbing tree trunks. In composing Harmodios with Aristogeiton we placed the two figures nearly parallel to each other, Aristogeiton slightly in front, as they appear on the Kyzikos coin.

The gain of the group in animation is considerable, and the poses certainly tally more closely than before with the representations on coins and vases. That we have obtained complete accuracy is unlikely; but we hope we are nearer the truth than before.

G. M. A. R.

## LIST OF ACCESSIONS AND LOANS

### BY DEPARTMENTS

OCTOBER 6 TO NOVEMBER 5, 1934

#### EGYPTIAN

*Gifts of Anonymous Donor* (1), *Mrs. Florence Blumenthal* (2), *N. de Garis Davies* (1), *W. Ruloff Kip* (1), *Mrs. Robert W. Lewis* (3); *Excavations* (210); *Purchases* (4).

#### CLASSICAL

*Gift of Mrs. Elias Kempner* (53); *Purchase* (1).

#### FAR EASTERN

*Ceramics, Chinese, Purchases* (15).  
*Costumes, Chinese, Gift of Miss Ellen Barker* (3).  
*Fans, Chinese, Bequest of Clara Legg Bucknall* (2).  
*Paintings, Chinese, Gift of Miss Ellen Barker* (1).  
*Reproductions, Gift of Marquis Hachisuka through Renzo Sawada, Consul General of Japan* (1).

#### MEDIAEVAL

*Sculpture, French, German, Purchases* (4).

#### RENAISSANCE AND MODERN

*Costumes, French, Purchase* (1).  
*Fans, English, French, Bequest of Clara Legg Bucknall* (22).  
*Laces, English, Italian, Gift of Mrs. Edward S. Harkness* (3).  
*Medals, Plaques, etc., French, Gift of the French Government through Jules Henry* (1).  
*Metalwork, English, Bequest of A. T. Clearwater* (5).  
*Sculpture, French, Italian, Purchases* (2).

#### AMERICAN WING

*Ceramics, Gift of Mrs. Robert W. de Forest* (9).  
*Drawings, Gift of Mrs. Robert W. de Forest* (1).

*Metalwork, Purchase* (1); *Loans of Mrs. George Walcott* (2), *Henry R. Walcott* (1).  
*Woodwork and Furniture, Gift of Mrs. Robert W. de Forest* (1).

#### PAINTINGS

*Drawings, Italian, Gift of Spencer Bickerton* (2).  
*Paintings, American, Loan of Mrs. E. Stuart Peck* (2).

#### PRINTS

*Gifts of Spencer Bickerton* (2), *Jean Charlot* (1), *Philip Hofer* (22), *Mrs. Bella C. Landauer* (3).

#### THE LIBRARY

*Books, Gifts of Burlington Fine Arts Club* (1), *Dr. John C. Ferguson* (1), *Porter Garnett* (1), *Philip Hofer* (2), *Sadao Iguchi* (1), *Charles F. Iklé* (1), *Edouard Jonas* (1), *The Pierpont Morgan Library* (1), *John Morris* (1), *The Oriental Institute* (1), *J. Poly* (3), *Professor G. E. Rizzo* (1), *Renzo Sawada* (1), *Jacques Seligmann & Co.* (4), *Mrs. Milford B. Streeter* (4), *Dr. Nikola Vulić* (1), *Mrs. John A. Walther* (22), *Yamanaka & Co.* (1).  
*Photographs, Gifts of George Blumenthal* (1), *Miss Adelaide Cabill* (51), *Henry Maras* (7), *J. P. Morgan* (3), *Museum antiker Kleinkunst* (1), *Arthur E. Popham* (1), *Frank J. Roos* (16), *Mrs. Milford B. Streeter* (36), *Dr. Oscar Waldhauer* (2).  
*Lending Material, Lantern Slides, Gift of Henry W. Kent* (5).

#### MUSEUM FILES

*Memorabilia, Gifts of Henry W. Kent* (1), *John Thom* (4).

# MUSEUM EVENTS

DECEMBER 10, 1934, TO JANUARY 13, 1935

## FOR MEMBERS

DECEMBER				
10	Chinese Stone and Wood Sculpture.	Miss Duncan	Galleries	2 p.m.
14	The Adam Influence in English Furniture.	Miss Bradish	Galleries	11 a.m.
15	Story Hour (Younger Children).	Mrs. Roswell F. Barratt	Classroom B	10:15 a.m.
	Art of the Middle Ages (Older Children).	Miss Freeman	Classroom C	10:15 a.m.
17	Chinese Mountain and Water Pictures.	Miss Duncan	Galleries	2 p.m.
21	Wall Decoration in the XVIII Century.	Miss Bradish	Galleries	11 a.m.
22	Art of the Middle Ages (Older Children).	Miss Freeman	Classroom C	10:15 a.m.
20	Art of the Middle Ages (Older Children).	Miss Freeman	Classroom C	10:15 a.m.
JANUARY				
4	XIV Century Painting in Italy.	Miss Abbot	Galleries	11 a.m.
5	Story Hour (Younger Children).	Susan Scott Davis	Classroom B	10:15 a.m.
	Art of the Middle Ages (Older Children).	Miss Freeman	Classroom C	10:15 a.m.
7	Elements of Color.	Miss Cornell	Classroom K	11 a.m.
	"Crete, the Forerunner of Greece."	Miss Miller	Galleries	2 p.m.
	Color as a Style Characteristic.	Miss Cornell	Classroom K	3 p.m.
11	The Early XV Century in Italy and the North.	Miss Abbot	Galleries	11 a.m.
12	Story Hour (Younger Children).	Eleanor W. Foster	Classroom B	10:15 a.m.
	Art of the Middle Ages (Older Children).	Miss Freeman	Classroom C	10:15 a.m.

## FOR THE PUBLIC

DECEMBER				
11	The Classical Collection.	Miss Miller	Galleries	11 a.m.
	Radio Talk.	Mr. Elliott	WNYC	3:15 p.m.
	Egyptian Wall Paintings.	Miss Freeman	Galleries	4 p.m.
12	XVIII and XIX Century Lace.	Miss Bradish	Galleries	11 a.m.
	The Mediaeval Collection.	Miss Duncan	Galleries	2 p.m.
13	The American Wing.	Miss Bradish	Galleries	11 a.m.
	Mediaeval Art—Domestic Art.	Miss Duncan	Galleries	2 p.m.
	Motion Pictures (Museum Films)		Lecture Hall	2:30 p.m.
	Radio Talk.	Mr. Elliott	WEAF	3:30 p.m.
	Design and Color: Summary.	Miss Cornell	Classroom K	4 p.m.
15	Radio Talk.	Mr. Elliott	WOR	12:30 p.m.
	Story Hour.	Mrs. Roswell F. Barratt	Lecture Hall	1:45 p.m.
	Ivories in the Morgan Collection.	Miss Freeman	Galleries	2 p.m.
	Hellenistic Greece.	Mrs. Fansler	Galleries	2 p.m.
	Tradition in Art: Danger or Deliverance.	Walter Pach	Lecture Hall	4 p.m.
16	Story Hour.	Mrs. Roswell F. Barratt	Lecture Hall	1:45 p.m.
	Hellenistic Greece.	Mrs. Fansler	Galleries	2 p.m.
	Modern Lighting (Gillender Lecture).	Walter Kantack	Classroom K	3 p.m.
	Sources for Stage Settings (Gillender Lecture).	Donald M. Oenslager	Lecture Hall	4 p.m.
18	The Collection of Paintings.	Miss Abbot	Galleries	11 a.m.
	Motion Pictures (Yale Film)		Lecture Hall	2:30 p.m.
	Cultural Relations of Ancient Egypt.	Miss Miller	Lecture Hall	4 p.m.
19	The Use of Lace in Costume.	Miss Bradish	Galleries	11 a.m.
	The Oriental Collection.	Miss Duncan	Galleries	2 p.m.
20	European Decorative Arts.	Miss Bradish	Galleries	11 a.m.
	Mediaeval Art—Minor Church Arts.	Miss Duncan	Classroom C	2 p.m.
	Motion Pictures (Museum Films)		Lecture Hall	2:30 p.m.
22	Radio Talk.	Mr. Elliott	WOR	12:30 p.m.
	European Silver.	Miss Bradish	Galleries	2 p.m.
	Republican and Augustan Rome.	Miss Miller	Galleries	2 p.m.
	The Romanesque Sculpture of San Miguel de Cuxa.	Walter W. S. Cook	Lecture Hall	4 p.m.
23	Republican and Augustan Rome.	Miss Miller	Galleries	2 p.m.
	Chinese Lowestoft (Gillender Lecture).	Homer Eaton	Lecture Hall	4 p.m.
25	Radio Talk.	Mr. Elliott	WNYC	3:15 p.m.
26	The Classical Collection.	Miss Abbot	Galleries	2 p.m.

# BULLETIN OF THE METROPOLITAN MUSEUM OF ART

## DECEMBER

27	Mediaeval Decorative Arts. Miss Bradish	Galleries	11 a.m.
	Motion Pictures (Museum Films)	Lecture Hall	2:30 p.m.
29	Radio Talk. Mr. Elliott	WOR	12:30 p.m.
	An Introduction to Muhammadan Crafts. Miss Duncan	Galleries	2 p.m.
	Pagan Rome in the Early Christian Era. Mrs. Fansler	Galleries	2 p.m.
	Vistas along the Classical Highways of Education. R. V. D. Magoffin	Lecture Hall	4 p.m.
30	Pagan Rome in the Early Christian Era. Mrs. Fansler	Galleries	2 p.m.
	Modern Architecture and Its Allied Industrial Arts. C. Grant La Farge	Lecture Hall	4 p.m.

## JANUARY

2	European and Oriental Armor. Stephen V. Grancsay	Galleries	11 a.m.
	The Oriental Collection. Miss Duncan	Galleries	2 p.m.
3	The American Wing. Miss Bradish	Galleries	11 a.m.
	Ctesiphon—a Persian Romance. Miss Duncan	Galleries	2 p.m.
	Motion Pictures (Museum Films)	Lecture Hall	2:30 p.m.
	Radio Talk. Mr. Elliott	WEAF	3:30 p.m.
5	Radio Talk. Mr. Elliott	WOR	12:30 p.m.
	Story Hour. Susan Scott Davis	Lecture Hall	1:45 p.m.
	Ancient Glass. Miss Miller	Galleries	2 p.m.
	Beginnings of Christian Art. Miss Freeman	Galleries	2 p.m.
	Pieter Bruegel the Elder. Miss Abbot	Lecture Hall	4 p.m.
	Symphony Concert. David Mannes, Conductor	Entrance Hall	8 p.m.
6	Story Hour. Susan Scott Davis	Lecture Hall	1:45 p.m.
	Beginnings of Christian Art. Miss Freeman	Galleries	2 p.m.
	Elements of Color. Miss Cornell	Classroom K	3 p.m.
	Romantic Illustration in France. Beaumont Newhall	Lecture Hall	4 p.m.
8	The Egyptian Collection. Miss Miller	Galleries	11 a.m.
	Motion Pictures (Yale Film)	Lecture Hall	2:30 p.m.
	Radio Talk. Mr. Elliott	WNYC	5:15 p.m.
	Elements of Design. Miss Cornell	Classroom K	11 a.m.
	Early Civilizations of Mesopotamia. Miss Duncan	Galleries	4 p.m.
9	European and Oriental Armor. Stephen V. Grancsay	Galleries	11 a.m.
	The Classical Collection. Mrs. Fansler	Galleries	2 p.m.
	Origins of Mediaeval Art (Matthews Lecture). Joseph Hudnut	Lecture Hall	4 p.m.
10	The Mediaeval Collection. Miss Freeman	Galleries	11 a.m.
	Muhammadan Crafts. Miss Duncan	Galleries	2 p.m.
	Motion Pictures (Museum Films)	Lecture Hall	2:30 p.m.
12	Radio Talk. Mr. Elliott	WOR	12:30 p.m.
	Story Hour. Eleanor W. Foster	Lecture Hall	1:45 p.m.
	European Glass. Miss Bradish	Galleries	2 p.m.
	Monastic Influences. Miss Duncan	Galleries	2 p.m.
	Pieter Bruegel (for Deaf and Deafened). Jane B. Walker	Classroom B	3 p.m.
	Drawings by Old Masters in the Metropolitan Museum. Frank Jewett Mather, Jr.	Lecture Hall	4 p.m.
	Symphony Concert. David Mannes, Conductor	Entrance Hall	8 p.m.
13	Story Hour. Eleanor W. Foster	Lecture Hall	1:45 p.m.
	Monastic Influences. Miss Duncan	Galleries	2 p.m.
	Color in Wall Papers (Gillender Lecture). Nancy V. McClelland	Classroom K	3 p.m.
	The Pattern of Our Period. Forbes Watson	Lecture Hall	4 p.m.

## EXHIBITIONS

Contemporary American Industrial Art: 1934	Gallery D 6	Through January 6
Manuscripts and Single Illustrations of the Shah-nama by Firdausi	Gallery E 14	Through January 1
Egyptian Acquisitions, 1933-1934	Third Egyptian Room	Continued
German XV and XVI Century Prints	Galleries K 37-40	Through December 25
Whistler Centenary (Prints)	Galleries K 37-40	Beginning January 5

# BULLETIN OF THE METROPOLITAN MUSEUM OF ART

## THE METROPOLITAN MUSEUM OF ART

Incorporated April 13, 1870, "for the purpose of establishing and maintaining . . . a Museum and library of art, of encouraging and developing the study of the fine arts, and the application of arts to manufacture and practical life, of advancing the general knowledge of kindred subjects, and, to that end, of furnishing popular instruction."

### LOCATION

**MAIN BUILDING.** Fifth Avenue at 82d Street. Buses 1-4 of the Fifth Avenue Coach Company pass the door. Madison Avenue cars one block east. Express station on East Side subway at Lexington Avenue and 86th Street. Station on Third Avenue elevated at 84th Street. Cross-town buses at 70th and 86th Streets.

**BRANCH BUILDING.** The Cloisters, 608 Fort Washington Avenue. Fifth Avenue Bus 4 (Northern Avenue) passes the entrance. Also reached by the Eighth Avenue subway, Washington Heights branch, to 100th Street-Overlook Terrace station. Take elevator to Fort Washington Avenue exit and walk south.

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Thanksgiving	12 m. to 4:45 p.m.
Christmas	Closed.

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### INFORMATION AND SALES DESK

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### CAFETERIA

In the basement of the main building. Open for luncheon and afternoon tea daily, except Sundays and Christmas. Special groups and schools bringing lunches accommodated if notification is given in advance.

### TELEPHONES

The Museum number is Rhinelander 4-7690; The Cloisters branch of the Museum, Washington Heights 7-2735.



THE METROPOLITAN MUSEUM OF ART

THE EGYPTIAN EXPEDITION

1933-1934



SECTION II OF THE BULLETIN OF THE METROPOLITAN MUSEUM  
OF ART, NEW YORK, NOVEMBER, MCMXXXIV

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## THE EGYPTIAN EXPEDITION

1933-1934

The reports of the Egyptian Expedition during the past season have been written by Ambrose Lansing and William C. Hayes, who were assisted in the excavations by Henry A. Carey and Lindsley F. Hall, and by Harry Burton, who did the photography in the field during the first and last months of the winter. Their work was once more on the pyramid of Se'n-Wosret I at Lisht.

The reader may recall that the two Twelfth Dynasty pyramids and the surrounding cemeteries at Lisht were the first concession given by the Egyptian Government to the Metropolitan Museum. There Albert M. Lythgoe and Arthur C. Mace, with the assistance of other members of the Expedition, conducted most fruitful excavations from 1906 to 1909 and from 1912 to 1914. During the war years of 1916-1917 and 1917-1918 it was Lansing who dug there for the Museum, and after the war, in 1920-1921 and 1921-1922, Mace resumed charge of the work. When Mace went to assist Lord Carnarvon and Howard Carter at the tomb of Tut-'ankh-Amūn in 1923, Lansing once more took charge in the two seasons from 1923 to 1925 and, after an interval during which no work was done on the site, he and his collaborators continued the digging in the three seasons from 1931 to 1934.

In all, the Metropolitan Museum has worked for fourteen seasons at Lisht, and it

is from the fruits of this work that we have built up a large part of our collection of objects dating from the Egyptian Middle Kingdom. The temples at both pyramids have been completely cleared and with them most of the surrounding courts. In addition the largest tombs in the immediate vicinity of the two royal burial places have been explored. Of the smaller tombs of lesser people many have been cleared, and while there are others of this category farther afield, it has not been deemed advisable to continue work on them. The Museum, accordingly, has surrendered its concession to the Egyptian Government, and with this season its work at Lisht has been concluded. The reports given herewith, therefore, are the last which the Museum will make upon a site which has been signally productive, both for the science of Egyptology and for the collections of the Metropolitan Museum.

During the past winter at Luxor N. de G. Davies has been preparing the Museum's publication on the tomb of Rekh-mi-Rē' and has been both copying and restoring the tomb of Surer—a tomb which he had cleared and partially copied during the first year of the war. Harry Burton, during the part of the season when he was at Luxor, continued the photography of the temple of Deir el Bahri and of the tombs of Amen-em-hāb and Sen-nūfer. H. E. WINLOCK.

# THE EGYPTIAN EXPEDITION

## THE EXCAVATIONS AT LISHT

### THE CEMETERY OF SE'N-WOSRET I COMPLETED

DURING the past season the Egyptian Expedition carried on its third successive campaign on the site of the pyramid of Se'n-Wosret I at Lisht. It had been impossible to finish the work on the site during the previous season, as had been hoped, owing to the discovery of the mastabah of Se'n-Wosret-'ankh, which made necessary a large amount of clearing in order to obtain all the evidence possible concerning that important tomb.<sup>1</sup> This year our object was, again, to complete the field work on the site of the pyramid. Some digging was done in an outlying part of the cemetery and a find was made there,<sup>2</sup> but, although it required considerable attention on the part of the staff, the main gang of workmen was left free to do the heavy clearing on the area reserved for the royal tombs. The investigation of these may now be considered complete.

Within the royal inclosure excavation remained to be done at two points. On the north side of the pyramid the work at the entrance had been left unfinished in the spring of 1933,<sup>3</sup> and on the south side a large mound had always made us hesitate to attack the area between the outer and inner inclosure walls in that part of the royal precinct. This pile of débris had resulted from the fact that the early plunderers, failing to force the granite-blocked entrance passage extending from the north side of the pyramid to the burial chamber, invaded the royal tomb from the other side. They had cut the bedrock under the pyramid, starting their passage from the center of the south side, and they presumably

reached the burial chamber deep below the surface. The French excavators in 1894 had cleared the ancient plunderers' passage as far as the modern level of the subsoil water permitted and had piled their débris still higher on the mound (fig. 1).

Work of our own to the east and the west of this obstruction had led us to suppose that royal tombs might exist on the south side of the pyramid, for we had found traces of inclosure walls similar to those which surrounded the small pyramids lying within the royal inclosure east and north of the main pyramid. The work on the site as a whole could not be considered complete without making sure of this point, and there was always the possibility that something of importance might have been overlooked by the earlier plunderers. The French excavators had indeed found a small unplundered pit in this region. It had produced nothing but a wooden box containing a wig, but the very fact that this wig had been separately buried indicated that it had been part of the tomb of a person of importance, and we set to work on the heavy clearing with the hope that possibly another pit of the same character might have been disregarded by the plunderers, whose main object was, after all, the finding of gold.

Clearing east of the mound soon disclosed the core of a pyramid of moderate size (fig. 2). None of the casing was preserved, but foundation blocks and trenches cut in the rock to receive the foundations of walls gave us a fair idea of the dimensions and plan of the original building. To the east of the pyramid had stood a chapel, many fragments of whose painted decoration were recovered. It had been built for the "king's daughter Ita-kayet," presumably one of the daughters of Se'n-Wosret I. No evidence

<sup>1</sup> See BULLETIN, Nov., 1933, Section II, p. 9.

<sup>2</sup> See below, p. 27.

<sup>3</sup> See BULLETIN, Nov., 1933, Section II, p. 8.

## THE EGYPTIAN EXPEDITION 1933-1934

of the floor plan was forthcoming, but fragments of fluted columns showed that the chapel was more elaborate than those of the small pyramids north of the king's pyramid. The decoration had not been confined to the usual offering ritual but had probably included scenes of the chase, for some of the fragments pictured birds flying in the marshes.

To the north of the pyramid were traces

the princess was to be made. She may have died before her time, for the lining of the walls of the burial chamber was quite evidently a careless job and no sarcophagus was found in it. She had presumably to be satisfied with a wooden coffin, but of this the plunderers had left nothing, nor indeed any trace of the rest of her equipment.

The western part of the area remained to give us hope of a find, but here the building



FIG. 1. EXCAVATION ON THE SOUTH SIDE OF THE PYRAMID OF SE'N-WOSRET I

of a second, smaller chapel, in the floor of which had been the mouth of the pit descending to the burial chamber. This was not, however, the only means of access to the underground part of the tomb, for a short distance to the east there was another pit, which, at a depth of 9 meters, connected with the first by means of a short passage. It seems probable that the builder had desired to complete the superstructure before the subterranean chamber had been finished, or at least before the sarcophagus had been introduced into it. Therefore he had cut the second pit and passage to the burial chamber so that he could finish its construction without disturbing the north chapel, through whose floor the actual interment of

on the surface had been so completely demolished that not even a trace of the name of the occupant remained (fig. 3). There had been a pyramid very similar to Ita-kayet's, with a chapel to the east and one to the north and exactly the same disposition of burial pits—one immediately below the north chapel and a subsidiary one to the east connecting with it. But the owner of this building, whether prince or princess, seems to have lived long enough to see that everything was in proper order.

The bottom of the shaft, when completely cleared, revealed the door to the tomb proper—a huge slab of stone which had entirely blocked the entrance. At one of the upper corners just enough had been broken away



to admit a slim man. This slab removed, access was gained to a plain rectangular antechamber, its side walls and ceiling lined with large blocks of limestone. The further end had been broken through by the plunderers. It consisted of a pair of limestone "sliding doors," which, resting on wooden skids in recesses in the rock on either side, had been drawn together until they met and completely closed this end of the room (fig. 4). It may be presumed that the designer of the tomb expected the wood on which these slabs of stone rested to rot out or at least to be compressed enough so that the slabs would rest on the stone flooring; otherwise it would have been just as easy to open the doors as it was to close them. Be that as it may, it took our five-ton jack to push the unbroken leaf of the door back into its recess.

The next part of the underground complex was a passageway sloping slightly downward and but little narrower than the antechamber. It had been blocked by four huge stones which had filled it completely (fig. 5). Two of these had been broken out by the plunderers as they forced their way to the sarcophagus chamber. This chamber had had further protection in a single door, or portcullis, which slid, also on skids, from a deep recess in the rock at the side. A unique locking device was provided by a long block of stone which stood upright in the recess behind the door slab when it was open and fell against its hidden edge when it was closed, effectually preventing the door from being pushed back into place again. The plunderers had therefore been forced to break through the upper part of it and had in this way penetrated the burial chamber proper.

A beautifully worked quartzite sarcophagus filled the chamber almost entirely (fig. 6). In fact the burial must have taken place before the sarcophagus was pushed into the chamber, for there was not sufficient difference between the height of the sarcophagus and that of the chamber to permit the sliding in of the coffin lid under the raised sarcophagus lid, not to mention introducing the coffin itself. How the plunderers managed to lift the heavy lid of the sarcophagus without breaking it is a mystery. They had

drawn the end out over the broken portcullis far enough to permit a man to slide in, break up the coffin, and remove it and its contents from the far end. They had not, however, been so careful with the sarcophagus itself, for, having got what gold there was from the coffin and the body, they had broken through the bottom and sides of the sarcophagus in search of some recess in the lining of the chamber which might contain treasure. This they did not find; nor did we, even after we had removed the sarcophagus completely and tested the walls and floor of the chamber. A Canopic niche to the east of the foot end of the sarcophagus, the traditional place, had contained a Canopic chest of the same light-colored quartzite.

The sarcophagus itself was an outstanding example of the Egyptian artisan's capability. The measurements taken of its length, breadth, and height showed no variation, the thickness of its walls was absolutely uniform, and the surface of the stone, while not highly polished, was smoothed to exact planes.

The box of the sarcophagus is a simple rectangle in plan, higher than it is wide, and is supported on four "cleats," as were the coffins of the period. Its lid is slightly vaulted, and in this respect it may be considered as an intermediate step between the two types of wooden coffin common in the Twelfth Dynasty—those with a flat-topped lid used by the poorer people in the cemeteries at Lisht and the type whose lid was a vault with vertical end boards, a variety confined to the burials of courtiers and the more important officials.<sup>4</sup> It was the latter type of coffin which had been inclosed in the sarcophagus. The plunderers had, to be sure, made a clean sweep of all the wood, but it was possible to reconstruct the size and shape of the coffin from the interior of the sarcophagus, which was hollowed out in such a manner as to fit exactly around it. In the underside of the sarcophagus lid, at either end, were recesses to receive the end boards of the coffin, and the remainder of it was vaulted (fig. 8). The floor even had four transverse slots cut in it to receive the four

<sup>4</sup> For a discussion of Twelfth Dynasty coffins, see Mace and Winlock, *The Tomb of Senebtisi*, pp. 23-56.



FIG. 2. THE PYRAMID OF THE PRINCESS ITA-KAYET



FIG. 3. REMAINS OF THE SMALL PYRAMID OF A PRINCE OR PRINCESS

cleats of the coffin (fig. 7). The fit had been so close that some of the gilding of the coffin still adhered to the inner side of the sarcophagus lid. The corner of the sarcophagus lid had been injured either during its cutting or afterwards, and a patch had been set in with a dovetailed tenon. So precise was the fit and so carefully had the stone been matched that the patch was not apparent until it was examined very closely (fig. 9).

It is a pity that the sarcophagus was so badly broken. The fragments of it and those of the Canopic chest are probably all in the tomb. The latter was put together for a photograph at the bottom of the pit (fig. 10), but the assembling of the sarcophagus fragments was too complicated a task. Perhaps at some future date it will be considered worth while to remove all these fragments and put them together in some museum. As this sarcophagus was not inscribed, we have no clue to the name of the owner or his relationship to the king, but there is little doubt that the tomb belonged to a royal son or daughter—more likely the latter in view of its similarity to the pyramid of the Princess Ita-kayet.

Before the investigation of these two small pyramids took place excavation had been commenced on the north side of the pyramid (fig. 11). An unexpected find in this area enlivened the beginning of the work. Large blocks of stone fallen from the pyramid were being cleared away in search of fragments from the north chapel. Under one of them lay what seemed to be just another cord basket, abandoned or lost by the quarrymen who had been removing blocks of limestone from the site. But a close inspection showed that it was not empty, for the green of corroded copper was visible through the meshes (fig. 12). The contents turned out to be a large collection of bronze and copper vessels, tools, and bits of sheet and raw metal, no less than seventy pieces altogether. Most of the vessels were crushed flat. The blades of knives had been bent back on themselves so that they would take up less room. But in general the metal was in very good condition, and it will be possible to straighten out many of the pieces into their original shapes. This mass of hardware had been tied up in a linen shawl, and

a mud seal bearing the impression of a scarab had been affixed to the knot. It is quite evident that, during the time that the pyramid was being exploited by quarrymen for the fine limestone which formed its casing, a coppersmith had come that way to see whether he could buy up any copper vessels which might have been found in the tombs. His luck was poor, to judge from the contents of the basket, for only one piece, a mirror, could have come from the Twelfth Dynasty cemetery surrounding the South Pyramid. All the rest is definitely later in date, most of it probably from the period of the Eighteenth Dynasty. This dating is confirmed by the inscription on the clay sealing of the linen bundle, which is almost certainly the prenomen of Tut-'ankh-Amūn. It may be assumed that the coppersmith had thrust his load under this large stone and that a slide of rock and débris from the slope of the pyramid had buried it so deeply that he was unable to recover it.

Among the more interesting items in this lot of copper are knives of several shapes, a razor, a leatherworker's knife, and hinges which apparently had been the fittings of a folding bed (fig. 13).

A gang of laborers was kept busy on the north side of the pyramid during most of the season in order to recover all possible evidence concerning the small chapel which had been built over the entrance to the burial chamber under the pyramid. The finding of a number of stray fragments of decoration from this building made it necessary to extend the clearing further than had been expected but resulted in the finding of a fine Twelfth Dynasty granite head (fig. 14) from the statue of a private individual. Many small fragments of the entrance chapel were added to those discovered last season, the whole of the evidence recovered making possible a complete understanding of the purpose and character of the structure. Hayes, who worked out the details of the reconstruction of this interesting building, describes it in the following section of this report.

The finishing of the north side of the pyramid and the clearance of the two small pyramids on the south side complete the investigation of the royal area (fig. 15). The

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dominant feature was, of course, the king's pyramid. Abutting it on the east side was the temple, which extended eastward until it was joined by the causeway leading up from the valley. On the north was the small chapel covering the entrance. Near the southeast corner lay the queen's pyramid.<sup>5</sup> Inclosing the main pyramid, the north chapel, and the queen's pyramid was a limestone wall which on the east side was interrupted by the temple. An outer wall, of mud

zontal (seven vertical units for each six horizontal) that of the nine smaller pyramids was about 63 degrees (two vertical units for each horizontal one).<sup>6</sup>

In the twentieth century before Christ, when all these buildings were new, the scene must have been one of dazzling brilliance, for the structures were all cased with fine white limestone and even the brick of the outer inclosure wall had been plastered with white gesso.

AMBROSE LANSING.



FIG. 4. ANTECHAMBER OF A ROYAL TOMB WITH "SLIDING DOORS" AT THE END

brick, made a wide court about the pyramid and joined the temple at its main entrance—the top of the causeway. In this outer court were situated the tombs of the royal family, no less than nine small pyramids. Each of these, like the king's pyramid, had a chapel to the east and a smaller chapel to the north. They were much more pointed than the big pyramid, for while the slope of the latter is about 49 degrees from the hori-

<sup>5</sup> There is a question whether these "queens' pyramids" are actually the burial places of the royal wives of the kings to whose pyramids they are attached. Though several "queens' pyramids" have been excavated none have ever contained anything which proves them to have been tombs, and it seems possible that they may be mere cenotaphs, or model pyramids.

#### THE ENTRANCE CHAPEL OF THE PYRAMID OF SE'N-WOSRET I

In the course of clearing the north side of the pyramid of Se'n-Wosret I at Lisht—a task which has occupied parts of the last two seasons of the Museum's Egyptian Expedition (1932-1933, 1933-1934)—there were found lying on the pavement of the inner court, on both sides of the entrance of the passage leading down into the burial chamber, fragments of a limestone building,<sup>7</sup> erected by the king and clearly part of his

<sup>6</sup> It was possible to check the angle of six of the pyramids, and they were doubtless all the same.

<sup>7</sup> See Lansing, *BULLETIN*, Nov., 1933, Section II, pp. 7-8, figs. 2, 3, 5-8.



pyramid complex (fig. 16). Traces of similar buildings have been found at the centers of the north sides of six other royal pyramids, situated in the Memphite area and dating from the Sixth to the Thirteenth Dynasty. These are the pyramids of King Teti<sup>8</sup> (Sixth Dynasty), Queen Neit<sup>9</sup> (wife of Pepy II, Sixth Dynasty), and Queen Ipuit<sup>10</sup> (Sixth Dynasty) at Sakḳāreh; those



FIG. 5. BREAK THROUGH THE "SLIDING DOORS" SHOWING THE BLOCKING IN THE PASSAGE BEYOND

of King Se'n-Wosret II<sup>11</sup> (Twelfth Dynasty) and his queen<sup>12</sup> at el Lāhūn; and that of King Khen-djer<sup>13</sup> (Thirteenth Dynasty) at Sakḳāreh. From the fragments hitherto recovered, including chips of colored relief and foundation blocks, and from marks of

the walls and doorways on the pavements of the pyramid courts, it is clear that these buildings were chapels for the presentation of offerings, small in size (about 5 by 6 meters), always built directly against the casing of the pyramid and always situated over its entrance or over the place traditionally prescribed as the location of the entrance—the center of the north side.<sup>14</sup> The plan of the typical chapel was simple, consisting of one rectangular room with a doorway in its north, or outer, end and having all or nearly all of its south wall taken up by a great paneled stela, or "false door," in front of which lay a stone altar for the reception of offerings presented to the deceased king.<sup>15</sup> The inner surfaces of the walls bore painted reliefs, of which a few small pieces with parts of royal figures, figures of offering bearers, and sections of offering lists have been retrieved at several of the sites listed above.<sup>16</sup> The north chapel of King Khen-djer was built on a platform raised above the surface of the surrounding court and approached from either side by a flight of stone steps.<sup>17</sup> Larger than the other examples so far discovered, this chapel extended northward nearly to the inclosure wall of the pyramid court. In several cases a gateway was opened in the northern inclosure wall opposite the door of the chapel,<sup>18</sup> but this appears not to have been necessarily a feature of the ensemble. The entrance of the sloping passage of the pyramid normally lies under the floor of the chapel, just in front of the stela,<sup>19</sup> the latter not only

<sup>14</sup> In the Twelfth and Thirteenth Dynasties the actual entrance was often placed on one of the other sides of the pyramid, probably in an effort to conceal it. This is the case at el Lāhūn and in the pyramid of Khen-djer at Sakḳāreh. In both these instances, however, the "entrance chapel" remains in its traditional place on the north face of the pyramid.

<sup>15</sup> See references under notes 8–13.

<sup>16</sup> Firth and Gunn, *op. cit.*, p. 9; Jéquier, *Deux Pyramides*, p. 17, fig. 14; Petrie, *Lahun II*, pp. 5, 8, pl. XVI; Petrie, *Illahun, Kahun, and Gurob*, p. 5, pl. XII.

<sup>17</sup> Jéquier, *Deux Pyramides*, p. 15, pls. II, Va.  
<sup>18</sup> Jéquier, *Pyramides de Neit et d'Apouit*, p. 12.

<sup>19</sup> Firth and Gunn, *Teti Pyramid Cemeteries*, vol. I, pp. 8–9, fig. 2; Jéquier, *Pyramides de Neit et d'Apouit*, pls. II, XXXVI; Petrie, *Lahun II*, pl. VIII.

<sup>8</sup> Firth and Gunn, *Teti Pyramid Cemeteries*, vol. I, pp. 8–9, fig. 2; vol. II, pl. I.

<sup>9</sup> Jéquier, *Pyramides de Neit et d'Apouit*, pp. 11–12, pls. I, II. <sup>10</sup> *Op. cit.*, pl. XXXVI.

<sup>11</sup> Petrie, *Lahun II*, p. 5, pls. VIII, XVII.

<sup>12</sup> *Op. cit.*, p. 8, pl. XVII; Petrie, *Illahun, Kahun, and Gurob*, p. 5, pl. XII.

<sup>13</sup> Jéquier, *Deux Pyramides du Moyen Empire*, pp. 15–18, pls. II, III, V.



symbolizing the presence of the king in the offering hall but representing the actual door of the tomb, through which the savor of the offerings and the prayers of the priests might pass directly down into the burial chamber. Of all the surface structures surrounding the pyramid proper this building was the one most intimately connected

possesses functions in many ways more essential than those of the larger building and enjoys, in all likelihood, a greater antiquity. It is not improbable, as Jéquier<sup>21</sup> suggests, that in very early times, before the growth of the formal solar cult in Egypt—a cult which naturally lays emphasis upon the east as the rising place of the sun—



FIG. 6. "SLIDING DOORS" OPENED AND BLOCKING REMOVED FROM PASSAGE SHOWING THE SARCOPHAGUS LID IN THE BURIAL CHAMBER

with the actual burial of the king, and its importance cannot be exaggerated. Although smaller and less pretentious than the main temple on the east side of the pyramid,<sup>20</sup> it

<sup>20</sup> An extensive and elaborate building, approached by a causeway and including an entrance hall, a colonnaded court, a sanctuary, storerooms, and various minor ritual apartments. From the Fourth Dynasty onwards it is the principal funerary temple of the king and is never missing from the east side of the pyramid. The more interesting, complete, and fully published examples include the temples of Kha'-ef-Rē' and Men-kau-Rē' at Giza (Hölscher, Chephren; Reisner, Mycerinus); of the kings of the Fifth

the one and only funerary temple was situated on the north side of the tomb monument, over or before the entrance, where, from a purely practical and physical point of view, it naturally belongs. In support of this theory it is a highly significant fact that the funerary temple of the Third Dynasty Dynasty at Abū Sir (Borchardt, Ne-user-re'; Nefer-ir-ke-re'; Sa<sup>h</sup>u-re'); of Pepy II at Sakkāreh (Jéquier, *Annales du Service*, 1928, pp. 56-60, pls. I-III); and of Se'n-Wosret I at Lisht (Lansing, *BULLETIN*, March, 1926, Part II, pp. 33-40, figs. 1-7).

<sup>21</sup> *Deux Pyramides*, p. 17.

pyramid of King Djeser at Sakḳāreh—the earliest structure of the sort now extant—lies not to the east but immediately to the north of the pyramid.<sup>22</sup> Later, with the removal of the temple to the east side of the pyramid, the north face is apparently left for some time without a chapel—probably owing largely to the fact that, during the Fourth Dynasty, the entrance is frequently set not at the pavement level but high up in the casing of the pyramid.

The entrance chapel reappears in the Sixth Dynasty and is, apparently, regular thereafter.<sup>23</sup> Evidence for its existence is lacking on many of the late Old Kingdom

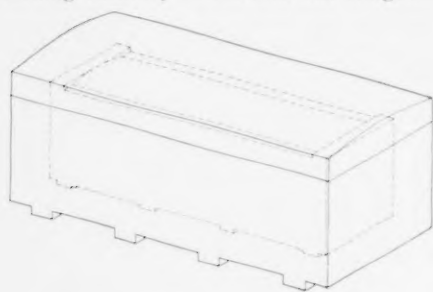


FIG. 7. THE ROYAL SARCOPHAGUS  
ISOMETRIC DRAWING. SCALE ABOUT 1:50

and Middle Kingdom pyramid sites,<sup>24</sup> probably because its position over and partially blocking the entrance made it an immediate and repeated prey to plunderers—both those attempting ingress into the burial chamber and those in search of blocks of cut stone. On the sites where traces of the entrance chapel do remain, they are (as has been hinted above) so scanty as to give little more than a suggestion of the extent, nature, and purpose of the building.

<sup>22</sup> Lauer, *Annales du Service*, 1929, pp. 118–126, pls. I, V.

<sup>23</sup> The location of the funerary chapel before or over the entrance of the passage to the burial chamber of the tomb is regular in royal tombs of the Eleventh Dynasty (Winlock, *BULLETIN*, Nov., 1921, Part II, p. 36, fig. 7) and in private tombs of the Middle Kingdom and New Kingdom at Thebes (Porter and Moss, *Bibliography*, vol. I: Theban Necropolis, *passim*).

<sup>24</sup> Notably, at the pyramid of Se'n-Wosret I's father, Amen-em-hêt I—the North Pyramid at Lisht. A colossal granite stela of Amen-em-hêt I, found at the entrance passage of this pyramid, may very possibly have come originally from such a building. See below, p. 18 and note 39.

In the case of Se'n-Wosret I's chapel we are somewhat more fortunate. True, the plunderers, in attempting to break open the granite-lined and granite-plugged passage to the burial chamber, have destroyed most of the upper course of the passage, broken the upper plug block, razed and carried off most of the chapel, and torn out and taken away all of that section of the pavement on which the building originally stood, thus destroying all traces of the plan that might have survived *in situ* (fig. 16). There remained, however, a number of complete blocks from the cornice of the chapel, two complete blocks and several large fragments of blocks from its walls (all bearing sections of painted relief on their inner sides), a fragment of a ceiling slab, most of the lintel of the doorway, sections of the vertical torus molding from the exterior corners of the structure, part of one of its great floor, or platform, blocks, and a small fragment of the alabaster stela. These, together with the evidence presented by the central section of the casing of the pyramid, into which the rear of the chapel was bonded, and that derived from generally similar edifices, are sufficient to permit a fairly complete and fairly accurate reconstruction on paper of the building, inside and out (figs. 17, 18), as well as a restoration of most of the decoration of the interior surfaces of its walls (figs. 19, 20, 22, 23).

Since this is the only entrance chapel yet discovered which *can* be reconstructed, the correctness of its proposed reconstruction is of major importance to those interested in ancient Egyptian architecture and royal funerary equipment. It is, therefore, our duty—even in this preliminary report—to lay before the reader at least the principal items of evidence used in the restoration and a general description of the method employed.

Although the part of the pavement on which the structure stood was completely gone, a rectangular rebate in the pyramid casing at the pavement level and centered over the axis of the entrance passage (fig. 16) not only showed to what extent the rear of the chapel had been bonded into the casing but gave a clue regarding the width of the building. Since the interior surfaces of

the rebate were neither decorated nor even dressed smooth, it is clear that they were once covered by facing blocks which formed the true surface of the interior walls of the chapel. At the same time it seems likely that the exterior of the chapel walls slightly overlapped the edges of the rebate. Taking these points into consideration and basing the thickness of the lining blocks of the sides of the rebate on the thickness of an extant

that were found. The reliefs preserved on the inner faces of all the blocks from the side walls are parts of offering scenes which are so stereotyped as to make it possible to place the lower blocks in their correct positions relative to the upper block, mentioned above, purely on the basis of the sections of the scenes shown upon them (figs. 19, 20). The establishment of the horizontal course lines of the wall by means of the joint sur-



FIG. 8. UNDERSIDES OF SARCOPHAGUS AND CANOPIC CHEST LIDS AT THE BOTTOM OF THE SHAFT

block which flanked the stela on the rear wall (fig. 22), it was possible to estimate the width of the chapel, both inside and out, to within a few centimeters. The interior width was later checked against the estimated width of the stela<sup>25</sup> plus the widths of the blocks which flanked it on either side and found to coincide with that dimension.

The thickness of the chapel wall at its top was ascertained from a nearly complete block from the upper course of the west wall,<sup>26</sup> as was also the batter of its exterior, the latter specification being checked from the several other blocks of full thickness

faces preserved on the top and bottom edges of a number of the extant pieces was naturally of great assistance in determining the original positions of the blocks. Subsequently these positions were confirmed by testing the ability of the thickness of the lower course blocks to coincide with that indicated by the batter of the wall for blocks at their respective determined heights. In this manner the height of the wall was established down to a distance of 12 centimeters below the top of the dado on the interior (this being the level of the lowest horizontal joint surface preserved). Estimating the dado to have been about shoulder high, a complete interior wall height of 3.86 meters was obtained, which coincides with the probable height of the stela<sup>27</sup> and gives the wall

<sup>25</sup> See below, p. 18.

<sup>26</sup> The large block with the upper part of the figure of the king, from the south end of the wall. See fig. 20, and Lansing, *BULLETIN*, Nov., 1933, Section II, p. 7, fig. 3.

<sup>27</sup> See below, p. 18.

a base thickness of 1.046 meters, or exactly 2 cubits. The wall was built in four horizontal courses, approximately equal in height, the upper two courses being combined into one at the south end of the west wall by the outside block with the figure of the king on its inner surface (fig. 20) and altered slightly at the south end of the east wall, where another extra large block was inserted (fig. 18).

Lying on the pavement just to the west of the pyramid entrance and close to the corner of the rebate in the casing was found a large fragment of what must have been a colossal block of stone. The fragment, estimated to be less than half of the original block, measures 2.74 by 2.20 by 1.25 meters. Its top surface only is smooth dressed. At the end of one of its sides a diagonal line has been drawn down from the upper corner, across the face of the side of the block, and the surface rebated to a depth of from 4 to 8 centimeters in the triangle formed by this line and the adjoining edges of the stone. Of great significance is the fact that the angle which the edge of this rebate makes with the horizontal is the same as the slope of the pyramid casing. The natural conclusion is that the edge of the rebate fitted against the pyramid casing, the end of the block having been thrust into the rectangular cutting in the casing over the entrance. This feature, the position of the block (that it could have been hoisted, turned over,<sup>28</sup> or even moved to any great extent by plunderers is, in view of its bulk, unthinkable), the limitation of the smooth dressing to its broad upper surface, and the presence of a series of cuttings for either the emplacement or removal of wall blocks along its upper edges—all point to the identification of the piece as a platform block, on which the walls of the chapel were raised above the level of the surrounding pavement. The rough-dressed condition of its preserved side indicates that this probably did not extend beyond the side surface of the exterior of the chapel but was faced with slabs, the outer surface of which con-

tinued the line of the battered walls of the chapel down to the pavement—a supposition which fits in well with the proposed overlapping of the chapel sides beyond the limits of the rebate in the pyramid casing. The heavy platform, or raised floor, of the chapel, fitted presumably with a sliding block over the mouth of the entrance, would have served as an extra and effective blocking for the pyramid passage, a purpose to which the comparatively light blocks of the ordinary pavement would have been less well suited. Moreover, the raising of the floor of the chapel may have been partly for ritual purposes,<sup>29</sup> the floor levels of the sanctuary sections of both the east temple of Se'n-Wosret I and Pepy II's temple, for example, being raised well above the level of the front part of the building.<sup>30</sup> Finally, there is the parallel of the north chapel of King Khen-djer at Sakḳāreh, which, as we have seen, was built on an elevated podium.

The arrangement of the blocks with the torus molding and cavetto cornice and of the ceiling slabs on the tops of the walls (fig. 18) was dictated by the sizes and shapes of the blocks themselves, many of which are preserved completely. The ceiling of the chapel interior was flat, as is attested by a large section of ceiling slab discovered. One torus block, far greater in both height and thickness than the others, which are uniform, evidently came from near the rear end of the building, extending behind the interior rear wall of the room and between it and the surface of the pyramid casing—a filling block pure and simple.<sup>31</sup> It was found appar-

<sup>28</sup> The raised platforms on which the kings of Egypt occasionally built the sanctuaries of their funerary chapels are probably in idea reproductions of the "Primeval Hill of Rē" of ancient religious legend. Since it was on this hill, symbolic of life and resurrection, that the god Osiris (with whom every deceased Egyptian was identified) was believed to have been buried, the use of a podium representing it as the base of a building closely associated with the burial of the king is wholly appropriate. See Frankfort, *Journal of Egyptian Archaeology*, vol. XII, pp. 163-164, fig. 3, and pl. XXX; The Cenotaph of Seti I at Abydos, vol. II, pls. II, III, LV.

<sup>29</sup> Jéquier, *Annales du Service*, 1928, pp. 56-59, pls. I, II.

<sup>31</sup> If used anywhere except in the triangle of solid masonry behind the upper part of the rear of the chapel interior, this block would project both

<sup>28</sup> Other considerations aside, dried trickles of the original mortar on the side and end of the block indicate that its present upper surface is the same as when the piece was in place in the building.

ently just where it had fallen, bottom up beside the west edge of the casing rebate.

When the total height of the chapel had been determined on the basis of the elements described above, a means of checking the estimate was sought and immediately found. The fragment shown in figure 24 is part of a block in which is combined not only a section of the pyramid casing, but, projecting from the line of the casing, the south end of the torus molding of the west cornice of the chapel. Fortunately, both a horizontal joint surface of the chapel (that between the torus and cavetto blocks) and a horizontal joint surface of the pyramid casing are preserved on the piece, the latter coming just 4 centimeters above the former. When the torus was placed at the height already estimated for it, the dressed surface on the top of the part of the block which had been bonded into the pyramid casing was found to fall exactly on the already known line between the fifth and sixth courses of the casing—a definite proof of the correctness of the restored height of the chapel.

On the length of the chapel (north-south) there is less real evidence than on any other of its dimensions. Five considerations governed the length chosen for the building in the reconstruction:

(1) The actually preserved length of the cavetto cornice of the west side (8.265 meters), being the sum of the lengths of the four regular cavetto blocks found on this side, plus the length of the side arm of the northwest corner piece and the width of the gargoyle block. Since it is certain that at least one regular cavetto block is missing,<sup>32</sup> the total length of the chapel must have been at least 1.5 to 2.5 meters longer than the preserved parts of this cornice.

(2) The length required on the interior of the side walls of the chapel to accommodate the offering scenes, with their usual long registers of priests and offering bearers.

(3) The space available between the pyramid casing and the inclosure wall. There

inward and downward into the room area—a state of affairs which from both a structural and an aesthetic point of view is clearly impossible. As a filling block its extra size is, of course, of great advantage.

<sup>32</sup> See below, p. 16.

having been no gateway in the inclosure wall at this point, sufficient space for access to, and for a passage in front of, the building had to be left between it and the inner face of the wall.

(4) The distance of the mouth of the entrance passage of the pyramid out from the

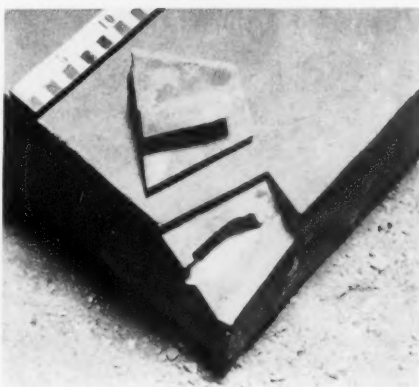


FIG. 9. PATCH IN A CORNER OF THE SARCOPHAGUS LID

base line of the casing, it being necessary that this entrance fall within the limits of the chapel plan, but, for practical reasons,<sup>33</sup> not too far from its entrance doorway.

<sup>33</sup> One of which was the necessity of being able to insert the long granite plug blocks into the sloping passageway of the pyramid at some time after the completion of the chapel. This was presumably done through the doorway of the building and would have been possible only if the doorway was set sufficiently far back to allow its top to clear the upward projected line of the passage slope.



(5) The usual proportions of the plan of a pyramid temple sanctuary—to which this chapel is clearly comparable.<sup>34</sup> Governing these indications was the desire not to inflate the size of the building beyond the limits actually required by its remaining parts, a desire prompted by the modest dimensions of the other pyramid entrance chapels the ground plans of which are preserved to us. The reconstructed building is, therefore, just as small as it is possible to make it.

Unquestionably the most interesting piece recovered from the exterior of the chapel is a gargoyle block from the cornice on the west side of the building (fig. 21).<sup>35</sup> The block is cut to fit between two of the regular cavetto blocks, the lateral profile and dimensions of which its side surfaces follow exactly. Projecting from its front were the fore legs of a lion, supported on a rectangular plinth, the fore elbow and shoulder of the animal being still preserved on the piece, below the overhang of the cavetto. The head of the lion protrudes forward and upward beyond the front edge of the molding.<sup>36</sup> The water channel passes longitudinally through the block, sloping downwards from the rebated roof edge at

the back, running under the head of the lion and out at the level of the center of the hollowed front of the cavetto, to emerge apparently into an open trough between the projecting fore legs of the beast. The rear section of the channel, from the sunken roof surface to a point below the crest of the cornice, is, like its front section, open, becoming a closed tunnel only where it passes through the central portion of the block. With a north-south dimension (when in place) of only 55 centimeters, the gargoyle is shorter than any of the cavetto blocks. It was cut almost entirely from one piece of stone, only the back of the head of the lion (now missing) having been carved separately—probably a patch, necessitated by an error on the part of the sculptor. For the most part the exposed surfaces of the gargoyle block have the same finish as the surfaces of the rest of the exterior of the chapel. Special attention was, however, devoted to the carving and finish of the lion's head, both of which are finer than one would expect to find on an exterior architectural element. The cutting of the water channel is, on the other hand, altogether rough, the tool marks being clearly visible over most of its interior surfaces. When in position, nearly half of the block projected beyond the side of the chapel; and, to prevent it from overbalancing, its back was fastened to the neighboring cavetto blocks by means of wooden(?) cramps set in mortises in the vertical rear surfaces of the blocks and spanning the rising joint on either side of the gargoyle block (fig. 21)—a rare example of the use of a cramp in a vertical joint. A telltale cramp slot in its vertical rear surface permitted the identification of the longest of the extant cavetto blocks as the one which flanked the gargoyle to the south; and, since none of the other blocks found has such a slot in its back, it is certain that at least one regular block from the cavetto cornice of the west side of the chapel has not been recovered. Both these facts point to the conclusion that the gargoyle was located at approximately the center of the west side of the building—that is, at the center of the west side of its roof area—a conclusion which, even without contributory evidence, we have every reason to suppose is correct.

<sup>34</sup> Compare it, from the point of view of purpose, equipment, decoration, and other characteristics, with, for example, the inner sanctuary of the pyramid temple of Pepy II at Sakka-reh (Jéquier, *Annales du Service*, 1928, pp. 56-60, pls. I-III).

<sup>35</sup> See also Lansing, *BULLETIN*, Nov., 1933, Section II, p. 8, figs. 6, 7.

<sup>36</sup> The use of the head and fore legs of a lion as a gargoyle motive is common in ancient Egypt from the Fifth Dynasty to the Roman Period (Clarke and Engelbach, *Ancient Egyptian Masonry*, pp. 159-161). The better-known examples of the lion gargoyle are those from the pyramid temple of Ne-Woser-Rē at Abu Sir (Borchardt, *Das Grabdenkmal des Königs Ne-user-re*, p. 65, fig. 44; Berlin Museum, no. 16700); the mortuary temple of Hat-shepsut at Deir el Bahri; and the temple of Hat-Hor at Denderah. Very similar to the piece under discussion is a gargoyle block (probably Middle Kingdom) recently salvaged from the fill in the third pylon at Karnak (Chevrier, *Annales du Service*, 1929, p. 137, fig. 1). A much battered lion's head in limestone, found in 1908-1909 by the Museum's Expedition on the east side of the pyramid of Se'n-Wosret I at Lisht (acc. no. 00.180.13; *BULLETIN*, Mar., 1910, p. 55), may well have come from one of the gargoyles of the main pyramid temple.

No fragments or even traces of another gargoyle block (useless from the point of view of the ancient or modern stone thief) were found; and the assumption that there was only one—located at the center of the west side—is inevitable. This would mean that the roof drained in one direction only—in other words, that its surface was sloped slightly from east to west, its lowest point being situated at the center of the west side, behind the gargoyle.<sup>37</sup> The roof surface, as we know from examining the backs of the cavetto blocks, was rebated below the level of the back of the cornice, the rebate being, naturally, deepest on the west side of its area.

In a region where the rainfall is as light as it is at Lisht, these elaborate precautions to ensure proper drainage for the roof of a small building may seem excessive. It must, however, be remembered that one of the torrential showers which occasionally fall in Egypt, carrying with it through the roof of a building streams of dirt-filled water, would be enough to ruin completely the painted reliefs on the interior walls; and that the roof of this particular building was required to shed not only the rain which fell on its own area but also the wash from part of the north side of the pyramid.

Of considerable interest are the torus and cavetto corner blocks from the two exterior corners of the chapel. Those from the north-west corner are preserved almost intact, while the torus block from the northeast corner is represented by a large fragment. The blocks are L-shaped in plan. In the case of the cavetto block the long arm of the L runs east-west across the front of the chapel, while in that of the torus block it extends down the side; there is accordingly a wide overlapping of the vertical joints of the complete cornice. Down the angle of the torus block runs a vertical torus molding, sections of which are also preserved from

the lower courses of the chapel. It is chiefly from these blocks that we learn that the cornice was decorated only on the front of the building, the leaves of the cavetto and the lashing of the torus being delineated here in low relief. Both cavetto and torus along the sides of the chapel are quite plain and unadorned.

Concerning the lintel block from over the doorway of the chapel (fig. 23, which shows

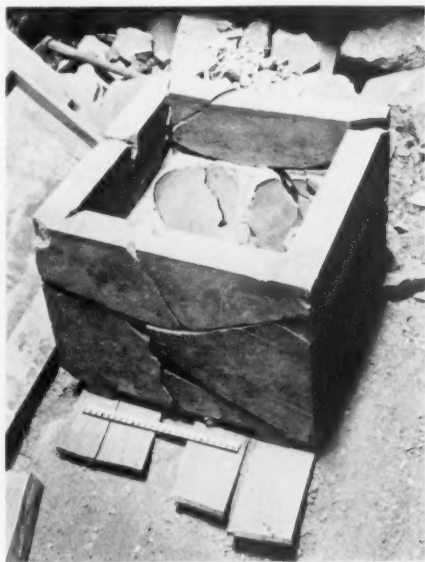


FIG. 10. THE CANOPIC CHEST

its inner surface) little need be said, except that its identification rests upon its dimensions, the decoration of its inner surface, and the fact that what is preserved of its underside is smooth dressed like the other exposed surfaces of the chapel and is weathered. The block is extremely useful in helping to establish the height of the upper course of the building and the height and width of the doorway. Dowel holes in its inner side near the top were apparently to receive pegs from which a portière or curtain of some sort was suspended.

The arrangement of the chapel in regard to the top of the granite-lined passage of the pyramid is shown in the longitudinal section in figure 18. As will be seen, the lintel of the chapel doorway clears the projected line of

<sup>37</sup> The compositional asymmetry created by having a roof sloping in one lateral direction only and a gargoyle on only one side of a building may well strike the student of Egyptian architecture as strange. The arrangement was, however, not uncommon. See Clarke and Engelbach, *Ancient Egyptian Masonry*, pp. 156-157; Borchardt, *Ne-user-re'*, pp. 64-65, fig. 43, pl. 13; *Sa<sup>3</sup>hu-re'*, vol. I, pl. 8.

the top of the passage, thus permitting the granite plug blocks (9 to 10 meters long) to be inserted after the completion of the building. It is assumed that a trench was left open down the center of the chapel platform from its front to the opening of the passage entrance, this trench being closed, subsequent to the completion of the burial and the insertion of the granite plug blocks, by a block slid horizontally into place over the passage mouth from the front of the chapel. The doorway is naturally of ample width to have allowed the insertion of both the plug blocks and the sliding block.

Near the inclosure wall, to the west of the front of the chapel, there was found a rectangular block of limestone fitted with a groove in its upper surface, clearly to take a section of wooden rail, or skid, and with a "handle" in one of its upper edges to facilitate its rapid setting into place. It may quite possibly be one of the track pieces on which the sliding block mentioned above was run into position. Its size (89 by 59 by 29 centimeters) would have allowed it to be inserted into the top of the entrance passage, from which, with a block carrying a second rail, it may have come (fig. 18).

No remains of the steps, shown leading up to the door of the chapel in the reconstruction (fig. 17), were found, and their arrangement is purely a matter of conjecture. The original presence at the front of the building either of one or more flights of steps or of a sloping ramp is, however, demanded by the need for a transitional element between the pavement level and the level of the chapel floor.

The masonry of the chapel appears on the whole to have been simple. A vertical groove at the center of one end of each of the cavetto blocks provided a hold for the mortar between it and the neighboring block and presumably helped to prevent it from sliding forward out of position. The torus-and-architrave blocks were fastened to one another by longitudinal dovetails, or cramps (probably of wood), set into slots in the ends of the top surfaces of the blocks. The cornice at the rear of the chapel was, as we have seen, bonded into the pyramid casing. The walls appear, for the most part, to have been built of regular, large, rectangu-

lar blocks. They were, however, patched in places, and awkward transitions in the courses were dealt with by the insertion of smaller blocks.<sup>38</sup> A coarse lime mortar was employed in all the joints of the building.

Of the alabaster stela there remained only a few chips without surface and a section of a torus molding, 4.5 centimeters in diameter, with painted lashing in low relief. The type and dimensions of the stela as restored are based largely on those of a huge granite stela of Amen-em-hët I, found beside the entrance passage of his pyramid at Lisht and possibly originally from the entrance chapel of that pyramid, though no other traces of such a building were found there.<sup>39</sup> The over-all height of the Amen-em-hët stela block is 3.86 meters; the width of the stela proper, 2.14 meters. These dimensions have been assigned to the almost totally

<sup>38</sup> Two small, nearly square blocks were let into the north end of the large block from the west wall on either side of a tongue projecting from the end of the block. One, inserted from the exterior of the chapel, is missing; while the other, from the interior surface, was recovered (fig. 20). Two other patch blocks, from unlocated positions in the exterior of the chapel wall, were found. Running around the bottom and sides of each block were two grooves, obviously intended to permit the block to be lowered by means of ropes into the cavity made to receive it. The ropes, thanks to the grooves, could be retrieved after the completion of the operation.

<sup>39</sup> See Mace, *BULLETIN*, Oct., 1908, p. 187, fig. 3. The stela is carved in the face of a block of red granite, which, when complete, was 3.34 meters wide, 0.6 meters of the block being left uncarved on either side of the stela proper and 0.76 meters below it (Cairo Museum, M.M.A. neg. no. C 21-22.1). It is hard to believe that, as Mace suggests, it came originally from the east temple of the pyramid, especially since a complete, though smaller, limestone stela of Amen-em-hët I was found in the sanctuary of that temple. The only evidence for its place of origin was its position when found: lying near the entrance passage at the center of the north side of the pyramid. The absence of traces of the entrance chapel itself may well be due to the alterations carried out on his father's pyramid by Se'n-Wosret I, or to the extensive plundering which the area around the entrance underwent in later times. That the larger of the two principal stelae of a pyramid (or of any tomb) should have been set over its entrance, rather than in its east temple, is not surprising in view of the fact that the stela represents the façade of the deceased's eternal dwelling and that its central motive is the entrance doorway of that dwelling.

missing stela of the entrance chapel of Se'n-Wosret I, and, as noted above (pp. 13-14), fit perfectly into the already estimated specifications of the interior of the chapel. The stela would have been the full height of the chapel interior, but not the full width; for it appears to have been flanked at either edge of the south wall by sculptured blocks of limestone (fig. 22), like the stela itself 60 centimeters thick.<sup>40</sup> The decoration of these

mediately in front of the stela, which was more or less demanded by ancient Egyptian custom,<sup>41</sup> is attested by a cutting near the center of the top of the preserved platform block from the rear of the chapel—presumably made to assist either in the emplacement or in the removal of the altar block.<sup>42</sup>

The chapel, already described in some detail, is shown completely restored in figures 17 and 18, its dimensions as reconstructed



FIG. 11. CLEARING THE NORTH SIDE OF THE PYRAMID, EAST OF THE ENTRANCE

blocks is discussed below.

The original presence of a stone altar im-

being as follows: exterior, length at the top 10.46 meters (20 cubits), length of building

<sup>40</sup> The block shown in fig. 22 is complete, as is also the subject depicted on its inner surface: a row of three gods facing to the right. Its width is only 80 centimeters, its right side being a dressed vertical surface. The border at the left edge of the field of the inner surface indicates that the piece is from one of the corners of the room. The nature and scale of its decoration make it impossible to fit the block into either of the side walls or into the north end wall of the chapel. It seems clear that the block is one of several built into the south wall of the chapel at either side of the stela. In deriving the width of the stela of Se'n-Wosret I from that of Amen-em-hêt I, these edging blocks of limestone have been equated with the blank panels which appear on either side of the stela proper on the block of the earlier monument (see above, p. 18, note 39).

<sup>41</sup> See Jéquier, *Pyramides de Neit et d'Apouit*, pls. II, XXXVI; Petrie, *Lahun II*, p. 8; Petrie, *Illahun, Kahun, and Gurob*, p. 5, pl. XII; Mace, *BULLETIN*, July, 1907, p. 116 (also *M.M.A. neg. no. L 1906-07.453-456*); Oct., 1908, p. 187; Lansing, *BULLETIN*, April, 1933, Section II, p. 22, fig. 20.

<sup>42</sup> Although no parts of an altar were recovered in the ruins of the chapel itself, numerous fragments of large altars in gray granite have been found scattered in the debris on all four sides of the pyramid. Several of these bear parts of the names of Se'n-Wosret I, and any one of them may have come from the entrance chapel. The altar of the main pyramid temple was found in 1894-1895 by the French excavators of the site and is at present in the Cairo Museum (Gauthier and Jéquier, *Fouilles à Licht*).



proper at pavement level 5.1 meters, width 5.94 meters, height 6.16 meters; interior, length 5.93 meters, width 3.74 meters, height 3.86 meters; height of cornice 1.05 meters; height of platform 1.25 meters; thickness of wall 0.9765 to 1.046 meters; batter of walls on exterior 44.66 on 1.

What remains of the scenes on the two side walls of the chapel interior is given in figures 19 and 20. As was usual in rooms of this kind, the two scenes were practically

exalted station—and the traditional broad collar. Before the face of the king are inscribed two of his principal names, "The Horus 'Ankh-mesūt, the Lord of the Two Lands, Se'n-Wosret"; while over his head hovers the falcon of the god Horus of Edfu, "The Edfute, the great god, brilliant of plumage, lord of heaven." Behind Se'n-Wosret stands his *ka*, or "double," carrying on his head, between the arms of the *ka* symbol, a repetition of the Horus name of



FIG. 12. BUNDLE OF BRONZE VESSELS AND IMPLEMENTS

identical in composition and all of the elements contained in them are wholly traditional.<sup>43</sup> The subject is the forever recurring repast of the dead king in the after life. Dominating the scene at the south, or inner, end of the wall is the life-size figure of Se'n-Wosret I, seated on his throne and extending his right hand to partake of the feast spread before him (fig. 20). On his head he wears the distinguishing wig cover of Egyptian royalty, the formal *nemes*, surmounted by the *uraeus* serpent, while his left hand grasps a folded handkerchief, another of the marks of high estate. His costume is completed by a goffered kilt with pendent lion's tail—a third symbol of his

<sup>43</sup> See Winlock, *Bas-Reliefs from the Temple of Rameses I at Abydos*, pp. 32–33.

the pharaoh, and holding before him a tall standard surmounted by a small reproduction of the head of the king. Over the head of this figure appears the legend: "The living *ka* of the king, foremost in the palace, foremost in the House of the Morning."<sup>44</sup> The vertical column of inscription down the left edge of the field reads: "(The Good God?), strong of arm, the lord of rites is foremost (of the living *kas*)," etc.<sup>45</sup> Under the right shoulder of the king is a short la-

<sup>44</sup> The formal chamber in which the purification, robing, and adornment of the king took place (Erman and Grapow, *Wörterbuch*, vol. V, p. 425). For parallels to the inscription, see Naville, *The Temple of Deir el Bahari*, vol. IV, pl. CX; vol. V, pls. CXXXI, CXXXII, CXXXIV.

<sup>45</sup> See Naville, *op. cit.*, vol. IV, pls. XCII, XCIII.



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bel, "Protection and life (are) behind him," and beside his left upper arm, another, "Purification of the king." Confronting the Horus name of the king is the goddess Udo (Buto) of Lower Egypt in the form of a coiled cobra, surmounting a papyrus stalk—the emblematic plant of Lower Egypt.<sup>46</sup> Below the goddess we read: "She gives life and prosperity." Both the falcon of Edfu

bread, cut from a large round loaf. The table epitomizes all offerings and under its right side we read: "bread, (beer), beef, fowl, alabaster, and linen, by thousands." Further to the right begin the offerings themselves (a metal bowl on a wooden stand, containing a tall loaf of bread; a basket of fruit, a bunch of grapes, part of a trussed fowl), heaped high in lavish profu-

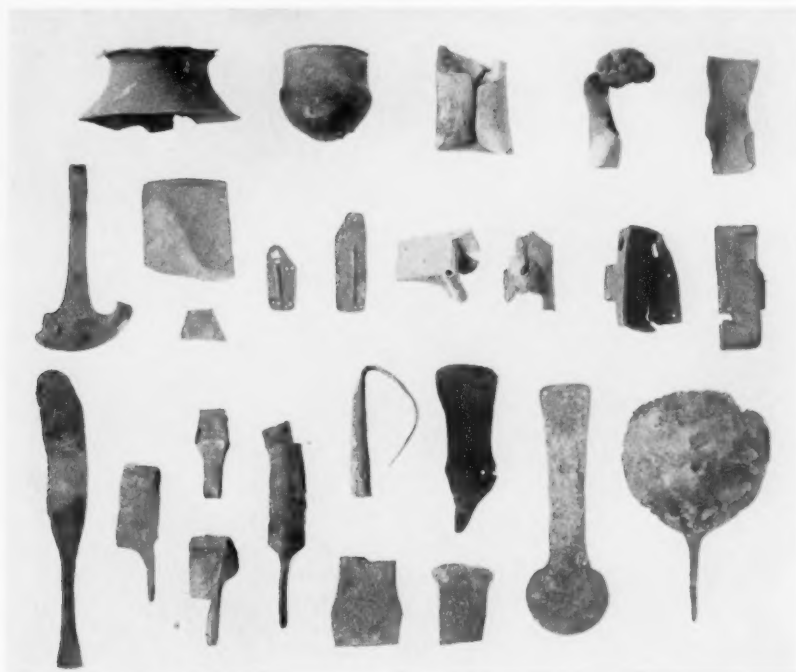


FIG. 13. HARDWARE FROM A COPPERSMITH'S CACHE. SCALE 1:6

and the Buto cobra extend the *shen* cartouche, symbol of universal power, to the pharaoh and to his name, respectively. The falcons surmounting the Horus-name panels wear the double crown of Upper and Lower Egypt, while the "Edfuite" carries on his head the two plumes.

Se'n-Wosret is seated behind a circular offering table of stone (labeled "table of offerings"), on which are stacked slices of

sion. Above them is inscribed the traditional list of offerings, arranged in tabular fashion—the formal "bill of fare" of the funerary meal.<sup>47</sup>

Beyond the offerings, in the first register below the list, was a series of scenes depicting the performance of the rite of offerings by the priests appointed to that function (the laying and purification of the table, the reading of the requisite spells, the purification of the guest, etc.). The last part of this ritual scene is preserved on a fragment from the east wall of the chapel (fig. 10, upper

<sup>46</sup> On a fragment from the corresponding section of the east wall the goddess Nekhbet of Upper Egypt appears in the form of a vulture, surmounting a clump of lilies—the plant of Upper Egypt.

<sup>47</sup> See BULLETIN, Nov., 1933, Section II, pp. 30-34.

piece), where we see the lower parts of two kneeling lector-priests, who chant the "Transfigurations" that transform the king into a "Glorious Being," muting their mouths or beating their breasts the while with their left hands. At the close of the rites the last departing lector-priest, as he passes through the doorway of the chapel, drags behind him a broom (for the exorcising of evil spirits), the tail of this broom being the object which appears on our fragment behind the second of the kneeling figures.



FIG. 14. HEAD OF A GRANITE STATUETTE. SCALE 2:5

The register below is taken up by another series of priests, the top of the head and the extended hand of one of them (a "lector-priest") appearing on the fragment under discussion to the rear of what was probably a table of offerings (labeled "divine offerings"), over which the lector is in the act of pronouncing an incantation. (In the illustration, the fragment is not shown in its true position, laterally, in relation to the piece below it. It belongs probably much further to the right of the scene, but is placed correctly in the vertical sense.)

In the bottom register a row of priests, courtiers, and other dignitaries (fig. 19), led by Nile gods (fig. 20), approach the throne of the king, laden with offerings. Like the other parts of the scene, the iconography of this procession is fixed by ancient tradition.

First come the fat "Niles," each bearing a *heleph* ("offering") mat surmounted by libation vases and the *was* ("prosperity") scepter. Over their heads appear the legends: "I give life and food," "I give life and sustenance," etc. (fig. 20). Next in order (probably separated from the Niles by a heap of meat offerings) are three dignitaries ("the Sole Companion," "the Chief Lector-Priest," and "the Sem-Priest"), each with a "*khpesb* joint," the fore leg cut from a freshly slaughtered bull (fig. 19, lower piece). Behind these, three more men, the first two of whom are "the Chief Lector-Priest who is in his period of service" and "the Sole Companion and Chief Attendant of the King," bring up struggling geese and ducks, while other water fowl appear in crates on the ground line between them. The last figure preserved leads a calf by a rope fastened to the animal's hind leg and has slung over his arm a bunch of onions.<sup>48</sup>

The missing parts of the scenes can be easily restored. Of the scores of parallels, the best two, from many points of view, are the side walls of the offering chapel of Hat-shepsût in her mortuary temple at Deir el Bahri<sup>49</sup> and a relief from a temple of Rameses I at Abydos. The latter is on display in the Tenth Room of the Museum's Egyptian collection and has been published by Mr. Winlock.<sup>50</sup>

The decoration of the entrance (north) wall of the chapel was as usual in rooms of this type. Across the top ran a register of offerings (fig. 23), brilliantly colored and executed in great detail and with great accuracy. Included in the lavish display are various cuts of meat and edible intestines;

<sup>48</sup> The man with the calf and the onions is, like most of the other figures, a frequently recurring type in offering scenes of this class. See Jéquier, *Annales du Service*, 1928, p. 58, pl. III; Borchardt, *Sa'hu-re'*, vol. II, pls. 28, 58, 63; Firth and Gunn, *Teti Pyramid Cemeteries*, vol. II, pl. 54; Naville, *The Temple of Deir el Bahari*, vol. IV, pls. CIX, CX.

<sup>49</sup> Naville, *The Temple of Deir el Bahari*, vol. IV, pls. CIX ff.; see also vol. V, pl. CXXIX.

<sup>50</sup> *Bas-Reliefs from the Temple of Ramesses I at Abydos*, pp. 32-42, pls. IX, X. Acc. no. 12. 186.1. See also Lythgoe and Ransom, *The Tomb of Perneb*, pp. 63-70, figs. 35-37; Davies, *The Tomb of Puyemrê at Thebes*, vol. II, pl. LVIII; Scheil, *Tombeau d'Aba* (*Mém. Miss. franç. au Caire*, vol. V, fascicle 4), pp. 645 ff.



FIG. 15. AIR VIEW OF THE SITE OF THE PYRAMID OF SE'N-WOSRET I. TAKEN AT THE CONCLUSION OF THE EXCAVATIONS. THE TOP OF THE PICTURE IS NORTH

trussed and untrussed fowls; many kinds and shapes of bread loaves; table trays of pomegranates; cucumbers, squashes, and other vegetables; and jars of beer, wine, and milk, on stands. The middle and lower registers of the wall were taken up with the customary scenes of the slaughter and butchery of cattle.<sup>51</sup>

On the narrow surfaces at the ends of the

or Upwawet, and possibly the god Amūn.<sup>52</sup> Other fragments include: from the east side, the upper part of another dog-headed god; from the west side, the name of the god Thōt. The number of gods estimated for the decoration of this wall, eighteen, suggests the Enneads, of three Triads each; but the presence of the nome god and of the two canine-headed forms makes it impossible



FIG. 16. THE SITE AND REMAINS OF THE ENTRANCE CHAPEL

south wall, on either side of the stela, were registers of gods—three gods to a register and, apparently, three registers, one above the other, to a side. The block shown in figure 22 is probably from the middle register on the east side of the stela. On it appear a nome god, a form of the dog-headed Anubis

that the Greater and Lesser Enneads of Heliopolis<sup>53</sup> are represented. Probably the triads are made up of gods local to the region about Lisht or especially revered by the reigning dynasty. The composition as a whole recalls the narrow registers contain-

<sup>51</sup> Part of one of these scenes is preserved on a small and badly weathered fragment of wall from the chapel (M.M.A. neg. no. L 33-34.400). For scenes of this type, adorning the entrance walls of offering chapels, see Jéquier, *La Pyramide d'Oudjebten*, p. 16, fig. 14; Borchardt, *Sa<sup>3</sup>hu-re'* vol. II, pls. 19, 28, 31; Naville, *The Temple of Deir el Bahari*, vol. IV, pl. CVII; Davies, *The Tomb of Puyemrē at Thebes*, vol. II, pl. LII.

<sup>52</sup> The identification is, of course, based on the type and accoutrement of the figure, especially on the tall double-plumed headdress. In spite, however, of the undeniable importance of the god Amūn in the Twelfth Dynasty, it is a curious fact that this is one of the very few possible examples of an actual representation of the god preserved to us from the monuments of Lisht.

<sup>53</sup> Erman, *Handbook of Egyptian Religion*, p. 27.

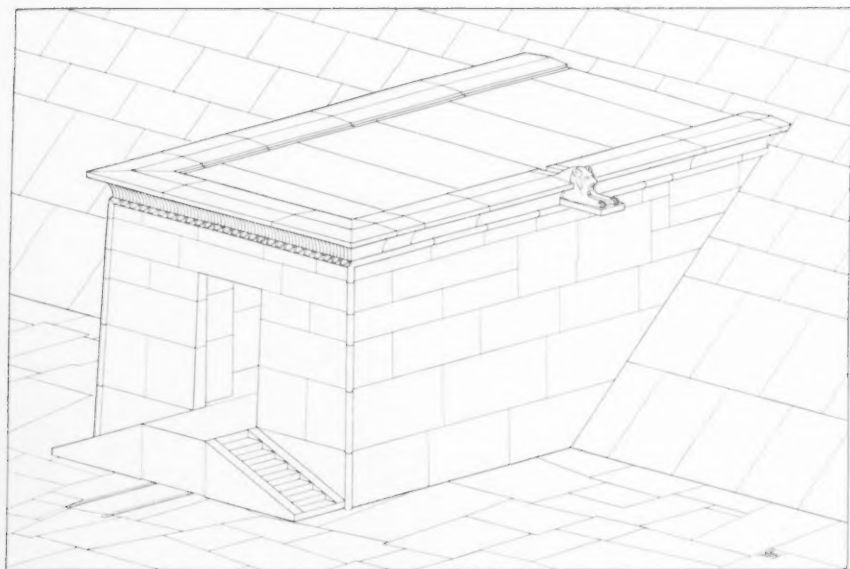


FIG. 17. THE ENTRANCE CHAPEL RESTORED: ISOMETRIC PERSPECTIVE

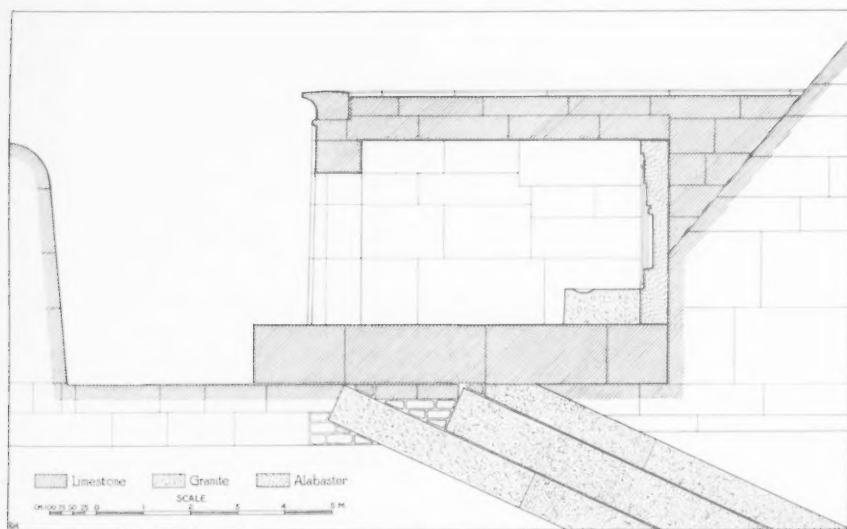


FIG. 18. THE ENTRANCE CHAPEL RESTORED: LONGITUDINAL SECTION, LOOKING EAST



ing figures of the "Souls of Hierakonpolis and Buto" which so frequently flank the stela in the ancient Egyptian mortuary chapel.<sup>54</sup>

Around the top of all the walls of the chapel interior runs a frieze (see fig. 23) of *khoker* ornaments (blue, green, red), surmounting a block border (blue, red, green, yellow), the latter also descending along the side edges of the walls at the corners of the room (fig. 20). The registers in the scenes

chapel of Se'n-Wosret I we have had occasion to note that the building reproduces in every way the inner room, or sanctuary, of the Old and Middle Kingdom mortuary temple and contains no element of equipment or decoration which is not found in the sanctuary proper. This leads us inevitably to the salient fact ascertained regarding the basic nature of the pyramid entrance chapel—namely, that it is the usual ancient Egyptian mortuary temple, reduced by the omis-

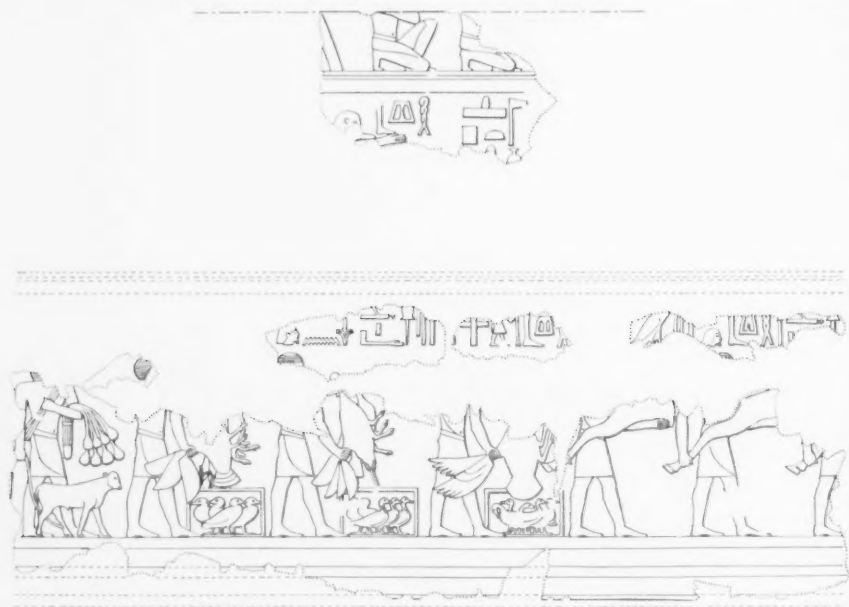


FIG. 19. DECORATION OF THE SIDE WALLS OF THE CHAPEL INTERIOR  
FRAGMENTS FROM THE EAST WALL. SCALE 1:17

are separated from one another by simple ground lines, and each is topped by an elongated  $\equiv$  (sky) sign, painted blue with yellow stars. At the bases of the walls is a high painted dado, probably black, with a crowning band of blue, red, and yellow stripes. The ceiling was blue with yellow stars in low relief. The scenes themselves were painted naturalistically in bright colors, the painter's palette including blue, red, green, yellow, black, and white. The ground color is throughout a pale bluish gray. Time, moisture, and exposure have erased most of this color, only traces of which now remain.

In the course of this study of the north

sion of the entrance complex, the forecourt, and the pillared hall to its one essential and, at the same time, most ancient part—the sanctuary. The only alterations made in the usual sanctuary type, the extra size and importance accorded to the "false-door" stela and the provisions made in the floor of the room for the opening and closing of the passage mouth, are those which adapt the building to its special function of harboring the entrance of the passageway into the burial chamber of the tomb.

WILLIAM C. HAYES.

<sup>54</sup> See, for example, Borchardt, *Ša<sup>3</sup>hu-re'*, vol. II, p. 40, fig. 6.

THE BURIAL OF HEPY

At the beginning of this report mention was made of a discovery outside the royal cemetery. This came about because the maṣtabah of Se'n-Wosret-'ankh needed pro-

ever, to protect the decorated chamber from a possible heavy rainfall which, seeping through the fill above the chamber, might injure the wall paintings and the texts. The easiest and most effective way to do this

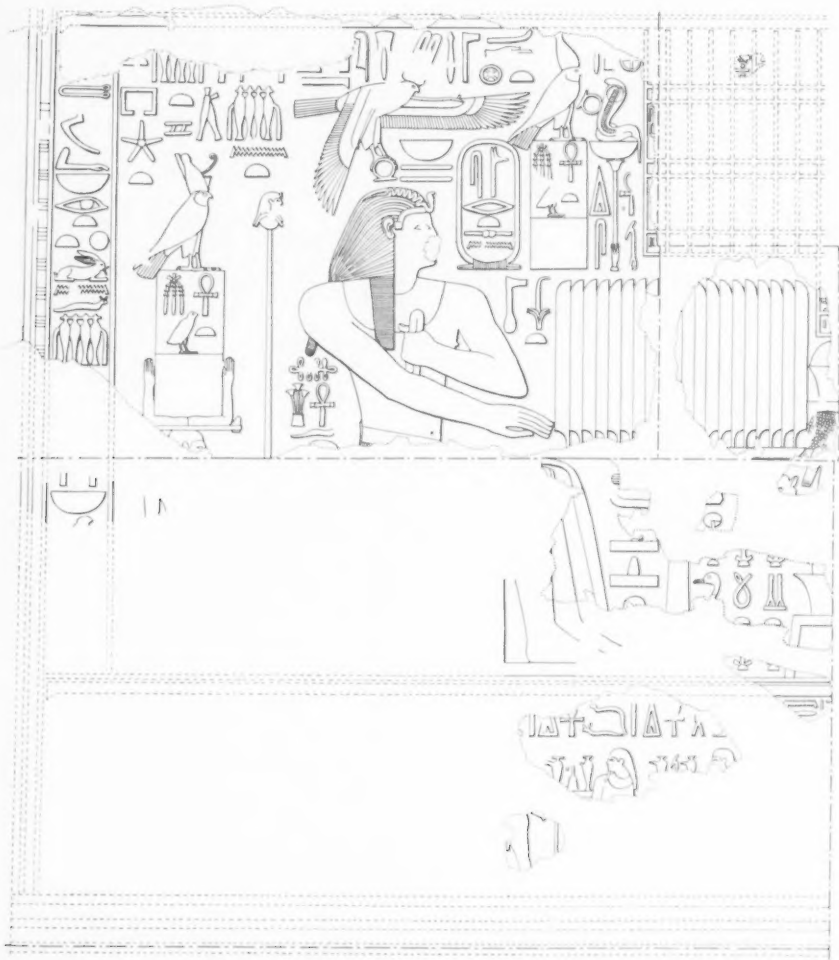


FIG. 20. DECORATION OF THE SIDE WALLS OF THE CHAPEL INTERIOR  
FRAGMENTS FROM THE WEST WALL. SCALE 1:17

tection. During the summer of 1933 M. Baraize of the Service des Antiquités had fitted an iron door in the entrance to the passage leading to the underground chamber and had placed a skylight at the top of the "chimney."<sup>55</sup> It seemed advisable, how-

<sup>55</sup> See BULLETIN, NOV., 1933, Section II, p. 16, fig. 19.

was to re-cover what remained of the maṣtabah with a mound of débris, and a small gang of laborers was set to work on an area to the west which was high enough to permit the débris to be carried to the maṣtabah without waste of effort.

The surface indications of the spot selected made it seem likely that a building

had existed there. The outlines of a maṣṭabah were soon traced, but it was by no means so important a structure as the tomb of Se'n-Wosret-'ankh. The core of the superstructure consisted of nothing but gravel, and the removal in antiquity of most of the casing had left it a formless mass. The spoliation had been so thorough that we soon lost hope of finding anything more interesting than a series of secondary burials such as we had found on the surface in the area surrounding the tomb of Se'n-Wosret-'ankh. But while the inclosure wall to the

which would take it under the maṣṭabah (fig. 27).

The arrangement of this entrance was very much like that of Se'n-Wosret-'ankh's tomb, and the workmen's excitement kept increasing. The pit, however, was too small to admit a sarcophagus, and it seemed evident that the building of the subterranean chamber had been accomplished by means of a second pit, perhaps under the body of the maṣṭabah itself. The passage sloped down for a distance of 10 meters. Then came a horizontal section, its walls and ceiling



FIG. 21. THE LION GARGOYLE BLOCK

north of the tomb was being cleared a curious fact was observed. It was built over a low spot in the rock, and a subsequent settling had caused cracks in the mud-brick structure of the wall (fig. 25). More interesting still was the fact that the brickwork was not continuous, for where the wall passed over the edges of the depression unbonded joints appeared. There was little doubt in the minds of the staff and laborers not only that the wall was built over the mouth of a pit but that the pit had not been plundered. After the wall had been carefully photographed, it was removed and the clearance of the shaft was begun. The fill was, as we had anticipated, perfectly clean sand and gravel, and our workmen went down it with an energy which they never show except in the expectation of a find. The fill continued clean to a depth of 8 meters, and then came a passage sloping to the south—a direction

lined with limestone slabs. One of the slabs appeared to have fallen in, admitting a pile of broken stone and sand. The breach might have occurred naturally or it might have been caused by plunderers. It stopped the work effectively but gave us a clue to the place on the surface where we might expect to find the mouth of the "construction" pit.

The surface débris was soon cleared away, and we began to go down a large square shaft close to the superstructure of the maṣṭabah and perhaps originally covered by the floor of a chapel attached to its east side. The upper layer of débris had been disturbed, but it was uncertain whether this had been caused by plunderers going down the shaft or by the quarrymen who had removed the fine stone of the maṣṭabah. A little lower down, however, the nature of the fill became more clearly defined. In three quarters of the area of the pit it was

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quite evidently original fill—the marl which composes the bedrock of this area, dumped back into the shaft after it had served its purpose. However, in the southwest corner of the shaft the fill consisted partly of this marl and partly of windblown sand. Here, we regretfully concluded, was definite evidence that the tomb had been entered after all.

Hoping against hope the workmen kept going down the shaft, but the southwest corner continued to show the same disturbance of the fill. It was nothing but another of those all too fre-

quency, and before long a few beads appeared in the débris which was being carefully inspected at the mouth of the pit before being carried away to the dump cars. A fragment of bronze and one of ivory were the next items to puzzle us, for these objects came

from the east side of the shaft, which had not been disturbed by the plunderers' little private pit driven through the sticky fill in the southwest corner. As the utmost care was indicated, small knives and brushes and reflected sunlight took the place of the heavy workmen's hoes and the dim light filtering



FIG. 22. BLOCK OF RELIEF FROM THE SOUTH WALL OF THE CHAPEL. SCALE 1:14

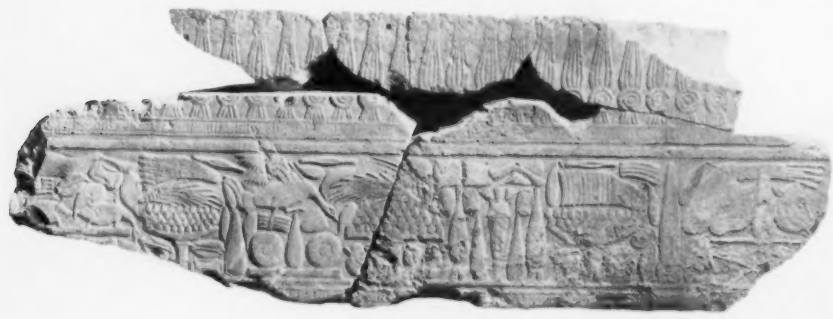


FIG. 23. REGISTER OF OFFERINGS, INTERIOR SURFACE OF THE DOOR LINTEL. SCALE 1:10

quent hopes that arise in the archaeologist's work only to be blasted.

We had fully accepted this decision of fate when the foreman came to me in great excitement and announced that a passage was extending eastward from the shaft and that it was blocked by a brick wall. Here was occasion for renewed hope. It seemed unlikely that the burial chamber of the mastabah would lie to the eastward, that is, away from the customary location under the superstructure, but the passage might lead to a subsidiary storage chamber for funerary furniture. The clearing proceeded

down from the mouth of the shaft.

The depth of the shaft at this point was 12 meters. Its dimensions were less than 2 meters square, and the projection eastward was the same width as the shaft. A space only 60 centimeters wide separated the line of the shaft from the wall of mud brick which blocked the passage. It was in this space that the beads had begun to turn up. They had never been strung but had been scattered without rhyme or reason in the fill of the shaft, which at this point consisted of the damp clay marl (the rock through which the shaft was cut) mixed with mud—

evidently bits of mortar dropped by the men who had built the wall blocking the passage. Clearing away this sticky mess of clay and mud was a laborious procedure, but the care with which it was done was rewarded in the end by the objects found embedded in it. The first to be exposed was a cylindrical rod of ivory, one end beautifully carved to represent a closed hand (fig. 30). This we discovered later was the handle of a flail, which is often represented on the monuments<sup>56</sup> and which has been found as part of the equipment of Twelfth Dynasty burials. It is sometimes shown on the monuments with a closed hand grasping the ends of the tails, but no actual example of this form has hitherto been found. Next came a



FIG. 24. FRAGMENT OF A BLOCK FROM THE CORNICE OF THE CHAPEL. SCALE 1:10

group of four "dolls," curious figures of faience lacking the lower parts of the legs. They show a variety of dress and necklaces, and one is clothed in nothing except a lot of tattooing (fig. 29). Near them was a faience figure of the hippopotamus goddess Taweret. Other objects in faience were an oil jar of traditional shape and its lid and a cucumber or squash; there was also a small ring stand of glazed steatite (fig. 29).

With the exception of the ivory flail handle these objects, while very fine, were not unexpected. The only unusual thing about them was the place where they lay. To be sure, very few such things have been found undisturbed. But if it were the custom for objects to be laid on the ground in front of the blocking, that is, outside the burial chamber, this practice would have been noted, since the blocking of tomb chambers is often found partly in place. Plunderers get into a chamber by the shortest possible

way, through the upper part of such a blocking, whereas excavators always clear down to the floor before entering.

More startling, however, than the position of these objects was the nature of a group of four ivory figures found with them, whose clearance was rather an agonizing procedure. They had apparently been set down on the ground in front of the blocking with very little regard for their safety, and when the pit was refilled clods of the earth had knocked them off their bases and left them in a sorry state. We did not really know what we had until after we had got them back to the house and Hayes had reassembled them. But the appearance of one of them as it lay in the dirt while we were cleaning it and then photographing it for position was most appealing. The tiny figure, with drawn face, its hands folded in front of its breast, seemed to beg to be rescued from the mud in which it had been engulfed for so many hundreds of years (fig. 28).

The type of this figure and its three companions (figs. 31-33) is absolutely unexampled. Had they appeared in the European market without antecedents no one would have been inclined to attribute to them an Egyptian origin. At first sight they seem to be Chinese. There is a faint facial resemblance to some of the grotesque terracottas which appear in the Late Dynastic and Ptolemaic periods, but were it not for the circumstances attending their discovery it would never have been supposed that they were made in Egypt during the Middle Kingdom. There they were, however, lying in clay which had not been disturbed since the middle of the Twelfth Dynasty at latest, and no question as to their date is possible.

The first of these little ivory statuettes, as mentioned above, has its hands palm to palm against its breast. The face has an expression which almost suggests agony. The brow is wrinkled, the cheeks are drawn back, and the mouth is open. This physiognomy gives an impression of dwarfism, coupled as it is with a nearly squatting position of the legs and a very marked projection of the hinder portions. Yet as far as the limbs are concerned there is no reason to suppose

<sup>56</sup> Mace and Winlock, *Senebtisi*, pp. 94-102.



that the sculptor was trying to depict the malformation present in the achondroplastic dwarfs which sometimes appear both in the tomb decoration and in the sculpture of the Egyptians.<sup>87</sup> The other three figures are of the same type exactly, the only difference being one of attitude, for the hands are held palm outward in the same plane and on the same level as the shoulders. Their faces also are contracted as though expressing violent emotion (fig. 33). One has his mouth pursed

shown just for the sake of his figure or his face. The same is true of sculpture. The tomb may contain a statue of the owner and possibly of members of his family, but the few examples of statues of other people that exist show them in the act of performing some task about the house, on the river, or in the fields. It is by applying this principle to the group of statuettes under discussion that we are able to determine its significance and purpose. The solution is fairly ob-



FIG. 25. BRICK INCLOSURE WALL OF A MAŠTABAH, BUILT OVER THE MOUTH OF ITS BURIAL PIT

as if he were whistling and this may be a clue to the purpose of these singular examples of Egyptian sculpture.

It may be said that in any representation of a human being in early Egyptian art the subject either is somebody or is doing something. The tomb owner is represented on the walls of his offering chamber standing by the false-door stela or seated in front of a table. Everyone else is active: priests performing libations or reading the prescribed formulae, attendants bringing offerings, butchers slaughtering cattle, and so forth throughout the long catalogue of subjects depicted in tomb and temple. No one is

<sup>87</sup> E.g., Newberry, *Beni Hasan*, Part II, pl. XXXII; Maspero, *Art in Egypt*, p. 82, fig. 150.

vious, for the variation in the position of the hands suggests only one possibility—the two moments of rest which take place in the act of clapping the hands. This method of marking the beat in music was customary in ancient Egypt as it is now, and we are not likely to be wrong in assuming that we have here the accompaniment to singing or the dance. It is even probable that the bent knees of the four figures are an indication that they are performing a sort of dance themselves as they clap their hands. It would be more convincing if they had been depicted standing on one foot instead of two, as in painted representations of dancing, but the laws of symmetry and frontality were too strong in Egyptian sculpture to

permit this. It must be remembered, too, that the figures would have been much frailer had they been poised on one foot. As it is, all four had at some time previous to their burial been broken off their bases and they had been carefully repaired by means of tiny dowels.

The subjects are men, for although their bodies have a youthful appearance, their faces can only be those of adults. They are all completely nude except for a closely folded shawl or scarf hanging over the left shoulder and passing below the right arm. Two of them wear necklaces and all four show variations in the dressing of their hair.

the base has dowel holes in its edges and when found the dust of rotted wood lay adjoining them. The underside of the base is peculiar in that a long channel is cut in it about halfway between one edge and the holes cut to receive the "spools." Horizontal holes are drilled from the channel to the "spools" at a level which brings them opposite the holes drilled in the latter. At first it was thought that these holes were for the purpose of fastening the figures to the base, but the design seems needlessly complicated. It is noteworthy too that circular scratches appear around the holes on the surface of the base where it came in contact

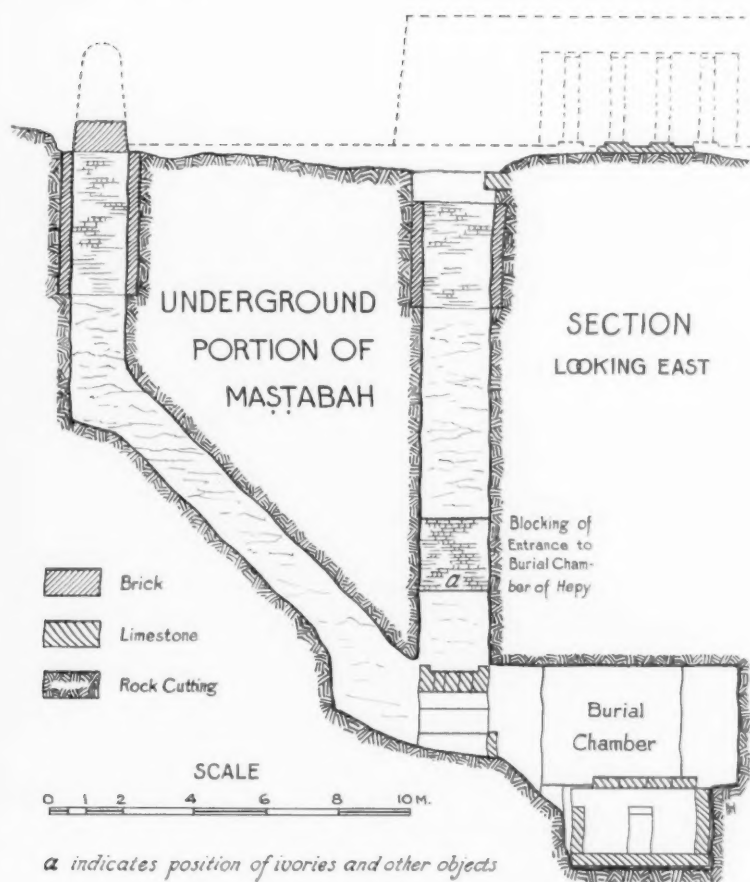


FIG. 26. FRAGMENT OF RELIEF FROM THE MASTABAH. SCALE 1:5

The smallest figure, only 5.5 centimeters high, is set on a small rectangular base through which are drilled two horizontal holes, possibly to receive pegs in order to fasten it to a larger base. The other three statuettes, only slightly taller, were set in a row on a single long slab of ivory. The method of fixing them to this narrow base is so peculiar as to require a careful description. Each individual figure stands on a small circle of ivory, the top surface of which is slightly rounded. The bottom is flat except for a spool-like projection with a horizontal hole drilled through near the center. The rectangular base is drilled with three holes of a size to receive these projections loosely. The "spools" are deeper than the thickness of the base, but it appears that strips of wood were fastened to the long sides in order to make up this difference, for

with the separate bases of the three figures. These scratches, the looseness of the "spools," and the channel with its holes admit of only one explanation. Threads were tied to the "spools" and passed through the holes and out to the end of the base by way of the channel. The figures were then twisted so as to wind up a certain amount of thread on the "spools." By pulling the threads the three figures could be made to turn, a slight jerk producing a change in position, a stronger one a full pirouette. Possibly two threads were attached to each "spool," proceeding one from each end of the hole. If these were pulled alternately the figures would make a half turn first in one direction and then in the other. When actuated in this manner they really dance.

The connection between dwarfs and dancing is strikingly illustrated by a passage in



### BURIAL CHAMBER OF HEPY

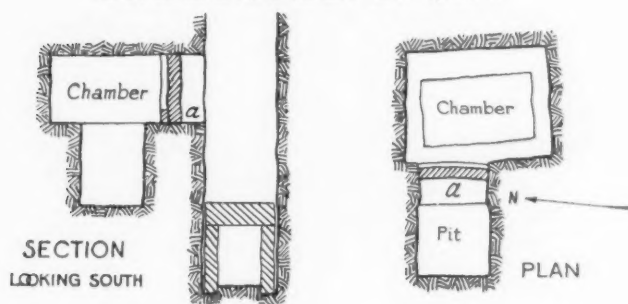


FIG. 27. PLAN AND SECTION OF THE TOMB OF HEPY AND SECTION OF THE MAṢṬABAH OF WHICH IT IS A PART

the Pyramid Texts<sup>58</sup>: "He is the dwarf of the divine dances, who diverts the god in front of his great throne." This seems to indicate that dwarfs had a place in the performance of religious ceremonies in the temples from very early times. Another inscription, dating from the Sixth Dynasty, is equally important. This is a passage from a letter written by King Pepy II to Har-khu-ef,<sup>59</sup> the Governor of the South, in reply to a message sent by the latter that he had "descended in safety from Yam" and was

It is plain from the king's letter that this dwarf was a great rarity in the Old Kingdom; he could not, therefore, have been an example of the achondroplastic variety, which seems to have been common enough in Egypt. As the dwarfs found in this tomb are not misshapen, there is every likelihood that they are of the type mentioned in the two texts.

It is not possible to fix exactly the geographical position of Yam, through which the "dwarfs of the divine dances" were



FIG. 28. OBJECTS LYING AS FOUND AT THE BASE OF THE WALL BLOCKING THE ENTRANCE TO THE BURIAL CHAMBER OF HEPY

bringing the king gifts obtained during an expedition further south. One of these "great and beautiful gifts" is a "dwarf of the divine dances from the land of spirits, like the dwarf which Burded brought from Punt in the time of King Isesi." The king bids Har-khu-ef take great care of the dwarf: "When he goes down with thee into the vessel appoint excellent people who shall be beside him on each side of the vessel . . . lest he fall into the water. When he sleeps at night appoint excellent people who shall sleep beside him in his tent; inspect ten times a night." Har-khu-ef is promised great rewards if he succeeds in bringing the dwarf alive to the court.

brought, and the very name of their home, "land of spirits," shows how indefinite it was in the minds of the ancient Egyptians, but it is clear from the Har-khu-ef inscription that their habitat lay somewhere beyond the reaches of the Upper Nile. The pygmies of Central Africa immediately come to mind. Their physical characteristics as described by anthropologists<sup>60</sup> resemble very closely those of our ivory figures and they are reported to be fond of dancing. It is, therefore, quite possible that in these figures we have the first representation of the Central African pygmies, which until recently were considered an invention of classical writers.

<sup>58</sup> Pyramids 1180.

<sup>59</sup> Breasted, *Ancient Records*, vol. I, §§ 351 ff.

<sup>60</sup> E.g., Georg Buschan, *Illustrierte Völkerkunde*, vol. I, pp. 541 ff.; F. Ratzel, *History of Mankind*, vol. II, pp. 208 ff.

# THE EGYPTIAN EXPEDITION 1933-1934

To judge by the two passages which have been cited, the only ones in which the subject is mentioned, the chief desirability of these pygmies, aside from their small stature, seems to have been their proficiency in

way in the action of the other three, but it has not yet been possible to find out how it could be made to move with them. Possibly this pygmy is only clapping his hands as he leads the others in the dance.



FIG. 29. DOLLS AND OTHER FAIENCE OBJECTS. SCALE 1:3

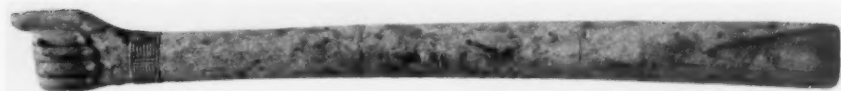


FIG. 30. IVORY HANDLE OF A CEREMONIAL FLAIL. SCALE 2:5

the art of the dance. It is therefore not surprising that the only representations of them which have been found should show them in the act of dancing. The three larger figures perform in unison. The base of the fourth figure is most unusual in design, suggesting that it may be connected in some

Toys which can be actuated are not uncommon in Egypt, but almost invariably they are coarsely made. It is the more surprising that this mechanical toy, for as such it must be classed, should have been fashioned with such delicacy. In no respect is the carving crude. The hands and feet are



quite as detailed as could be expected in figures of this size, and in the faces the artist has surpassed himself.

The portrayal of facial expression in Egyptian art is so rare that it is always astonishing. The king seems to have the same emotions in the midst of battle as he does when at ease with the ladies of his harim. The noble is seated at table, but does not seem in the least to look forward to his meal. The menial rows a boat, bakes bread, and brews beer with the same apathetic attitude toward his task. Perhaps we are

beads, and the moment for opening the blocking had arrived. After the preliminary photograph was taken several courses of brick were removed from the top of the wall and we had our first view into the chamber. It was not a very satisfactory one, for a collapse of rock from the side of the chamber obscured the contents of a depression cut in the floor. Heavy planks were visible, and it looked as if the recess contained three coffins (fig. 34). The removal of the brick blocking proceeded, and as we approached the bottom more of the beads which had



FIG. 31. IVORY FIGURES OF DANCING DWARVES. SCALE 3:5

making an unwarranted assumption in supposing that the expressions on the faces of the dancing figures are intended to represent emotion. It may be that they merely depict grimaces customary in the performance of such dances. In any case the little figures are fulfilling their function of doing something with a vigor and animation that makes them unique in Egyptian art.

Below this mechanical toy was found a mass of beads. Decayed wood and two small ivory pegs showed that the beads had been contained in a small jewel box, and although the strings had entirely rotted away it was possible to note enough associations between beads of different varieties to permit re-stringing with a fair degree of accuracy.

At last the whole area was cleared down to the rock, the mass of broken brick and mortar continuing to produce scattered

been noted scattered in front of the blocking were found in the brickwork and even on the chamber side of the blocking. When the blocking had been completely taken down we could see better what was before us. Most of the floor area of the chamber was occupied by the depression, leaving only a narrow ledge around its four sides. In one corner was a single bowl of pottery. On the far side some traces of gesso showed where there had been two small wooden statuettes and a funerary boat. The dampness at this level had left nothing of the wood of these small objects except impalpable dust.

From a different angle it could now be seen that the depression contained not three coffins but a huge single one made of very long and heavy planking. The coffin had been crushed by the fall of rock from the side of the chamber, and when the débris

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was removed it was evident that the lower part had rotted away through its contact with the damp floor. The removal of the three planks forming the lid of the coffin revealed that it contained an interior coffin, and this one, we were glad to see, was in-

been completely decorated with the usual texts and pictures of offerings, the name of the original owner remained unaltered (fig. 36).

In view of the dampness which had rotted the lower third of both coffins we did not ex-



FIG. 32. THE IVORY FIGURES, SIDE VIEW



FIG. 33. THE IVORY FIGURES, FRONT VIEW

scribed (fig. 35). It had been made for a man bearing the name of Se'n-Wosret but the inscribed characters cut into the surface of the wood had been filled in with gesso and had been replaced in paint by the name Hepy. Here was another strange factor in this already puzzling tomb. The name had been changed wherever it occurred on the outside of the coffin, but in the interior, which had

pect to find the mummy in good condition. A peek through a crack in the lid had showed dislocated bones and the dull glint of gold, but the state of the body was even worse than we had anticipated. The rock fall must have occurred after the wrappings of the mummy had disintegrated, and the jolting which it had suffered had been sufficient to scatter both the bones of the skele-

ton and the jewelry in all directions. In consequence, the labor of recovering the latter was enormously increased, for it was necessary to note carefully the positions of all the varieties of beads in the hope that some evidence might thus be preserved which would permit their being restored to their original state. There was literally not a single pair of beads whose contiguity could not have been caused by chance rather than by the fact

was of no service. The jewelry had actually been worn by the girl Hepy during her lifetime, as dents in some of the goldwork prove. On the other hand, while both the beads and the gold ornaments were of first-class workmanship, it was not certain whether any particular piece of jewelry was complete.

Near her ankles, for example, were found a clasp and four spacers of the type which



FIG. 34. THE BURIAL CHAMBER OF HEPY WHEN FIRST ENTERED

that they had originally been next each other on the same string. The gold, however, remained more or less in place, doubtless owing to its greater weight. As a result we were able to determine with certainty that Hepy had worn an anklet, a bracelet, a girdle of cowrie shells, and a necklace of acacia-pod beads. But which of the many varieties of bead had been strung with the gold ornaments depended upon how many of each variety there were, in what part of the coffin most of each kind were found, and whether they seemed appropriate. To add to our difficulties this was not a typical set of funerary jewelry, and therefore the evidence obtained from previously found sets

could be used for either an anklet or a bracelet. In the region where the forearm should have been were three more spacers exactly like the others, but no clasp. There can be no question that she had been provided with a bracelet and an anklet. The latter was complete with clasp, but the former must have been held about her wrist by means of the threads passing through the beads and spacers. When it came to assigning beads to these two objects the difficulty arose that no sufficient quantity of a suitable type was found either near the foot end of the coffin or in its central area. There were, however, a great many tiny spherical beads of carnelian and lapis lazuli scattered over the floor



FIG. 35. THE INNER COFFIN OF HEPY

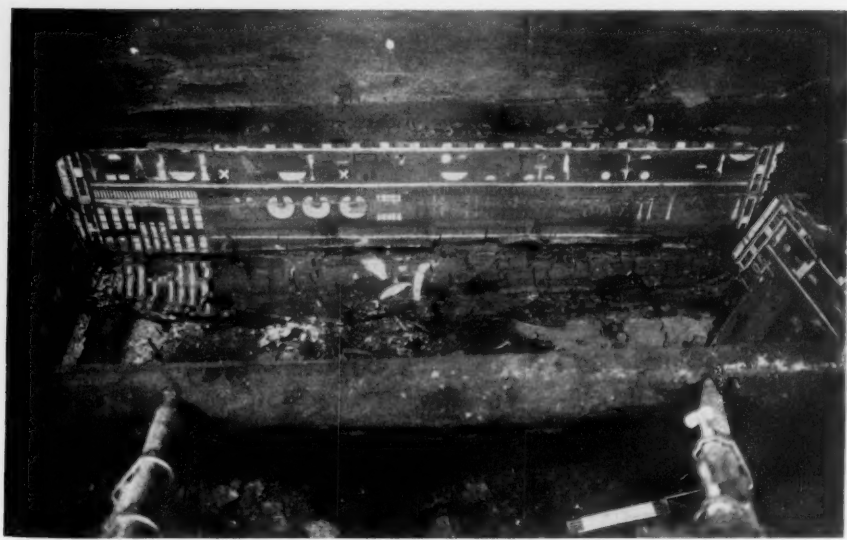


FIG. 36. INTERIOR DECORATION OF HEPY'S INNER COFFIN

of the coffin, and we were forced to the conclusion that they belonged to the anklet. But as they did not suffice to complete both anklet and bracelet, it was necessary for the latter to choose the next best thing—enough of a great quantity of small barrel-shaped lapis lazuli beads (fig. 38).

The eight cowries lay in such a position that they must have been part of a girdle. They are beautifully made but not nearly so large as the well-known gold cowries from the tombs of the princesses at el Lāhūn and Dahshūr. They differ in design as well, for they are much more naturalistic in form and the mouth of the shell really makes an opening between the body and the lip. One of the cowries is larger in size than the others, though of the same design, and we may presume that it was worn in front. The clasp is of the conventional type, a cowrie resembling the others in every respect but split in two, one half bearing a tongue which slips into a slot in the other. Unless we suppose that the cowries were strung with a heterogeneous lot of spherical beads we must assign to them the remainder of the lapis lazuli barrel beads, of which there are sufficient to give the girdle the proper length.

The only other showy piece of jewelry was a string of spherical lapis lazuli beads strung between large flat gold beads imitating pods of the acacia tree (fig. 39). Four smaller gold ornaments are of a sort hitherto unknown. They look like tiny baskets, and a ring comes from the inside of each to permit their being hung on a string (fig. 37). Whether the baskets were pendants of a necklace or whether each, hung on a separate short string, made a bracelet is uncertain. Two small carnelian lions are probably from a bracelet, and there were several necklaces of beads without pendants.

It is not possible in the scope of this report to present all the evidence relating to the burial of the girl Hepy and to state all the problems which arise in attempting an explanation of its unusual features. For example, was Se'n-Wosret, for whom the coffins were originally made, ever buried in the chamber? A fragment of relief found in the debris of the maṣṭabah (fig. 26) preserved the pictures of two men, apparently relatives of the tomb owner. The two remaining characters of the inscriptions suggest that a Se'n-Wosret may also have been pictured. It is very likely that a relative would be buried in a subsidiary tomb of the maṣṭabah; on the other hand it is by no means common for a burial chamber to open off the construction shaft of the maṣṭabah. In this case Se'n-Wosret must have been buried before the maṣṭabah was completed, for the northeast corner of its superstructure rested on the fill of this shaft (see fig. 27). His body must have been plundered, the girl Hepy buried in his coffins, and the shaft refilled—all during the time between the digging of the underground part of the maṣṭabah and the building of the superstructure. Were the objects found in front of the blocking of the chamber entrance originally Se'n-Wosret's or Hepy's? Were they deliberately placed there, or were they dropped there by plunderers?

These are only a few of the many questions which a consideration of the evidence evokes, each bringing with it a mass of contradictory possibilities. For the present, at least, no truly satisfactory solution is possible, but we may congratulate ourselves that what makes the problem of this tomb really interesting is the fact that such rare objects were found in it.

AMBROSE LANSING.





FIG. 37. "BASKETS" OF GOLD. FULL SCALE



FIG. 38. HEPY'S GIRDLE AND BRACELET. SCALE 1:3



FIG. 39. GOLD ACACIA-POD BEADS. FULL SCALE



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THE METROPOLITAN MUSEUM OF ART  
THE PERSIAN EXPEDITION

1933-1934



SECTION II OF THE BULLETIN OF THE METROPOLITAN MUSEUM  
OF ART, NEW YORK, DECEMBER, MCMXXXIV



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## THE PERSIAN EXPEDITION

1933-1934

The past season was the second of the Museum's work at *Qasr-i-Abu Naṣr*, near *Shīrāz*, in Persia. It was proposed to finish this small but interesting site during the winter. However, as the reports of Joseph M. Upton and Walter Hauser, which are given below, relate, there were unexpected complications in the excavation of the Sāsānian fortress which occupied part of the site and in an extremely interesting discovery of a hoard of Sāsānian seal impressions. The unanticipated amount of surveying and copying entailed have caused Upton, Hauser, and Charles K. Wilkinson, their collaborator, to postpone the conclusion of the excavation of this site till the coming winter.

As it is confidently expected that work at *Qasr-i-Abu Naṣr* will be completed this winter, the members of the expedition have examined a number of other sites which

might be available if the work in Persia is to continue. Among them *Nishāpūr* gives greatest promise and the Museum is assured by the Persian Government of a concession to excavate there.

*Nishāpūr* is said to have been founded by Sāsānian kings of the third or fourth century A.D. It was a flourishing metropolis by the fifth century; in the tenth century it was one of the four great cities of *Khurāsān*, ranking as larger than *Fustāt*, capital of Egypt; and in the following century, it was one of the most important cities of *Islām*.

The site of ancient *Nishāpūr* is marked today by a number of mounds covering its ruins, and in the spring of 1935 the expedition proposes to make a preliminary excavation in some one of these as a guide to possible work on the site in the future.

H. E. WINLOCK.

## THE PERSIAN EXPEDITION

### THE EXCAVATIONS

THE second season's work at *Qasr-i-Abū Naṣr*, which commenced on October 21 and ended in the third week of June, proved far more interesting than the first. It presented us with a whole new series of problems in architecture and dating and carried us back at least to the Parthian period. As described last year,<sup>1</sup> the site of our excavations is a crescent-shaped hill with the well-known "Achaemenian" ruins on the western horn, a fortress on the eastern, and traces of a town on the slopes and bottom of the inclosed "amphitheater." This season's labors

were confined largely to the fortress, with only short digs in trenches on the slope of the amphitheater, to determine the nature and quality of the town there, and along the inclosure wall we traced last year between the horns of the crescent (figs. 4, 12). At present the fortress is a long flat spur separated from the main mountain range by a deep, dry watercourse. Always the most prominent feature was a tremendous curved wall on the southern end some twenty meters high (figs. 2, 5), built of roughly dressed stone and white mortar in two vertical layers to a thickness of 6.5 meters. Behind this showed a mass of well-laid bricks that we hoped might be the roofs of rooms and pas-

<sup>1</sup> BULLETIN, Nov., 1933, Section II, p. 39.

sages leading from some entrance hidden by débris through the bottom of the wall up to the main fortress level, where outcrops of walls had been visible in the north half even before digging began. The great wall, it was obvious, originally continued round the spur on the east and west till it joined the high perpendicular cliffs which form a natural protection for about half the area (fig. 3). On the west it must have gone nearly two thirds the length, but on the

partly satisfied. The slope turned into the remains of a series of stone supporting walls strengthened by cribbing and buttressing which had been built up to make a great level platform within the fortification. The highest natural point of the hill, the northeast end, had been taken as the desired height, and the original sharp slope downward to the southwest was masked and filled to the point where the great retaining wall ended the fortress. The mass of brick just



FIG. 1. WORK STARTING ON THE WEST SLOPE

east only a short distance brought it to unscalable rock.

The digging commenced low down on the west slope between this great wall and the cliff (fig. 1). Almost immediately we found fragments of a jasper plate (fig. 27), a green stone bird's head (fig. 30) possibly of Achaemenian date, the bottom of a prehistoric Nihāvand bowl decorated with concentric circles and well-drawn heads of geese or ducks, a prehistoric animal seal, and several painted potsherds all of a date earlier than the Sāsānian period. At once expectations of a series of levels making a cross section through all the Persian cultures were roused, unfortunately to be only

within this wall disappointed us most deeply. Repeated cuts into it made us only too certain that it was an especially strong part of the platform, the foundation for some important structure taking up about a sixth of the whole area and standing above the general level on a whitewashed podium (fig. 6). Possibly it was the site of a fire altar. Tradition has it that there were two important ones near Shīrāz in the Arab period.<sup>2</sup> Iṣṭakhrī describes a fortified town near Iṣṭakhr, about thirty-five miles north from Shīrāz, called al-Baiḍā because it had a fire altar which shone into the distance

<sup>2</sup> P. Schwarz, *Iran im Mittelalter*, vol. II, p. 44.



FIG. 2. THE FORTRESS BEFORE EXCAVATION



FIG. 3. WEST SIDE OF THE EXCAVATED FORTRESS

and which was seen from far off because of its white color.<sup>3</sup> This foundation is most ingeniously constructed in very strong small square and rectangular compartments of field stone built on the sloping natural surface of the hill, strengthened here and there by diagonals and curved buttresses near the edges of the platform. Many of these toward

fused manner of all Oriental towns at all periods (fig. 9). Houses and their courtyards abut each other, interlocking in solid masses, with plans and single rooms shaped to the spaces demanded by the surrounding buildings and with a marked disregard of the right angle. No space was wasted on giving a direct or easy entrance from the

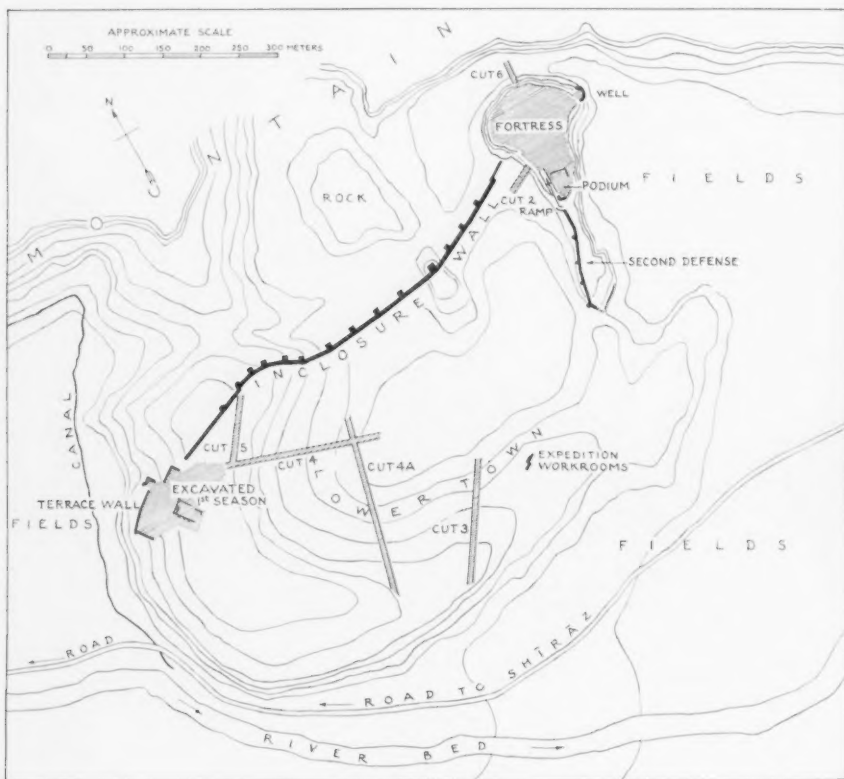


FIG. 4. SKETCH MAP OF THE SITE

the center were partially filled up with rubble, and others were built up solidly with mud brick which bonded into the brick floor of the podium or terrace, making a tremendously solid footing. It was this floor, at places seven meters thick, eroded into a parabolic shape that had given us false hopes of rooms and passages.

The remaining five sixths of the fortified area was covered with a town arranged around three well-defined streets in the con-

<sup>3</sup> Ibid., vol. I, p. 16.

streets, and a veritable labyrinth resulted. There are two levels of building definitely traceable almost everywhere, often extremely difficult to disentangle, as there seems not to have been any destruction which demanded a general rebuilding but rather a gradual transformation as time necessitated repairs and reconstruction. The lower level, where it is clearly seen, is usually the better built, being of stone set in plaster or of good mud brick. Hard plaster surfaces are common on the walls and so



are hard floors of plaster and gravel. The upper level, on the contrary, is built of field stone set in mud as mortar or of layers of mud (*chinē*) piled up on a footing of two or three rows of stone (fig. 10). Only a few of the rooms show any flooring, and that usually of packed mud or crude stone paving. The presence of Parthian or Seleucid coins and certain pottery shapes suggests that the lower level may be at least as old as the

The rhomboid shape does not seem to be conditioned by the surrounding structures or by any attempt to make walls perpendicular to the street. The entrance through an open vestibule or archway is typically Eastern. Opening the outer door gave no view beyond into the interior, and two rooms to the left and one to the right entirely separate from the rest of the house gave ample space for entertaining those who were not



FIG. 5. THE GREAT RETAINING WALL AND THE GATEHOUSE



FIG. 6. NORTH WALL OF THE PODIUM

Parthian period (248 B.C.-A.D. 226) and certainly not later than the earliest of the Sāsānians. The rather jerry-built houses in both levels are in great contrast to the excellent construction of the podium, of the sturdy retaining walls which do service as cliffs, and of the thick brick parapet with round towers at strategic points which once doubtless encircled the whole town but now exists only on the north side. The most interesting of the completely excavated buildings (fig. 7, A) occupied the center of the town. It is larger by far than any other and must have been of particular importance. It is well built of mud brick with walls 1.2 meters thick, but its plan is most curious.

desired within. The largest room has two square plastered stone piers and two pilasters to support the necessary wooden beams for the ceiling, one of which we found. Here again the piers are most curiously placed on an axis perpendicular to the short ends of the room instead of parallel to the long sides as one would expect. The room contained ten huge storage jars (fig. 16). Just southwest of this building are two rectangular rooms with excellent plaster floors, separated one from the other by a partition only 30 centimeters thick. The use of the rooms is a problem, for down the center lengthwise ran a step about 25 centimeters high covered with plaster (figs. 7, B and 8) and at

the partition end of one of them is a step about one meter wide with a rectangular, basin-like depression. It was on the remains of this partition that we found parts of a corselet made of rectangular scales in alternating groups of iron and copper or bronze which formed a checker pattern when the garment was worn (fig. 11).

Two other rooms, far apart, were interesting for their contents rather than their architecture. Both were simple rectangular rooms, though one had shallow pilasters on

below it a shaft was sunk to water level. From the plain a thick, semicircular wall similar to the great retaining wall was built up in front of the cave, perhaps to the floor, perhaps to the top. This made a strongly protected, cool well room and a well quite inaccessible from outside. It was also much simpler to construct than one cut through the solid rock from the top of the hill. At the end of the east-west street of the town a flight of steps was constructed to lead down to the opening in the roof where

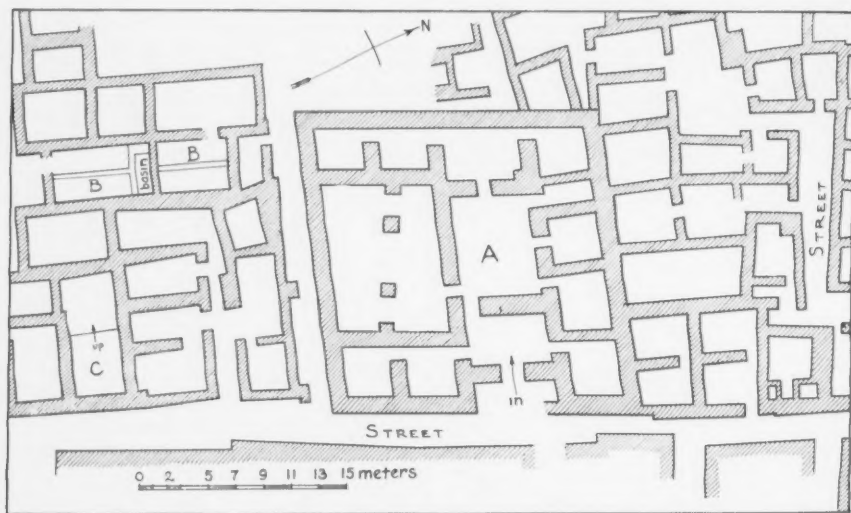


FIG. 7. PLAN OF THE LARGEST HOUSE AND ITS SURROUNDINGS

one long side, and both had been destroyed by fire (fig. 7, c). They yielded us quantities of mud seals, and one also gave us the crystal head in figure 37 and the other the beautiful bronze candlestick in figure 36. Many of the seals seem to be from documents, and it is possible that these two rooms represent the libraries or archives of the town. Some of the seals will be of great importance to us for dating when they have been thoroughly studied.

The water supply for the fortress was very cleverly contrived. The cliff on the southeast side is riddled with natural caves. One of these, which was halfway up the face and had a broad overhanging roof, was chosen to be the site of the well. Through this roof a square hole was cut and directly

buckets or jars could be lowered through the cave into the well and water drawn up for distribution to the householders.

We found the main entrance to the fortress after removing many enormous stones fallen from above. It was a gatehouse at the left of the great retaining wall leading to a long paved ramp practicable for donkeys and horses (fig. 14). Coming down from the top, one descended the ramp, entered the gatehouse through a very narrow door, crossed diagonally, and went out by a door in the opposite wall, once again contrived to give no view beyond when it was open. One emerged onto a long tongue of land containing a few buildings now so far gone that their character is quite uncertain. This tongue formed an outer defense to the fort.



FIG. 8. VIEW SOUTHWEST FROM THE LARGEST HOUSE



FIG. 9. VIEW FROM THE "FIRE ALTAR" NORTHWARD OVER THE FORTRESS TOWN

being surrounded by a brick wall four meters thick, pierced at intervals by loop-holes overlooking the lower town, in the

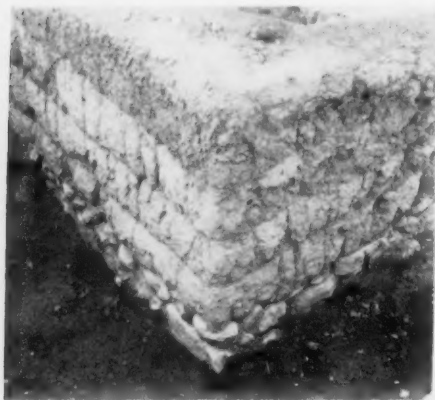


FIG. 10. MUD, OR CHINĒ, WALL

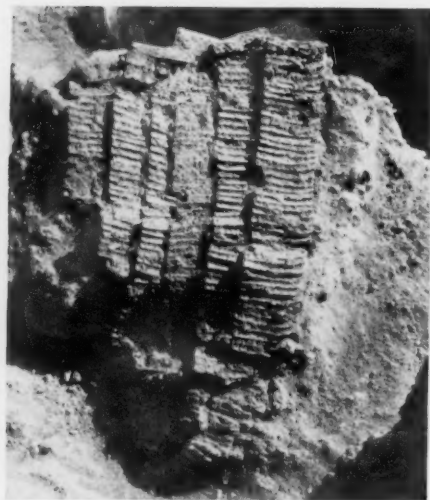


FIG. 11. FRAGMENT OF BRONZE  
AND IRON CORSELET

amphitheater, and further protected by frequent round towers (fig. 13). Into this area cattle and sheep could have been driven in times of attack.

The outer, or third, defense was the great double stone wall inclosing the lower town. This wall, about six meters wide, broken on its outer surface by square towers seven

meters on a side at intervals of from 28 to 38 meters, must have presented a very strong defense. It has been excavated from near the north corner of the fort across the valley and up the west horn of the crescent to the "Achaemenian" ruins (fig. 12). It is now fairly certain that the big terrace wall<sup>4</sup> in the latter region, excavated last season, is part of this inclosure wall and that the

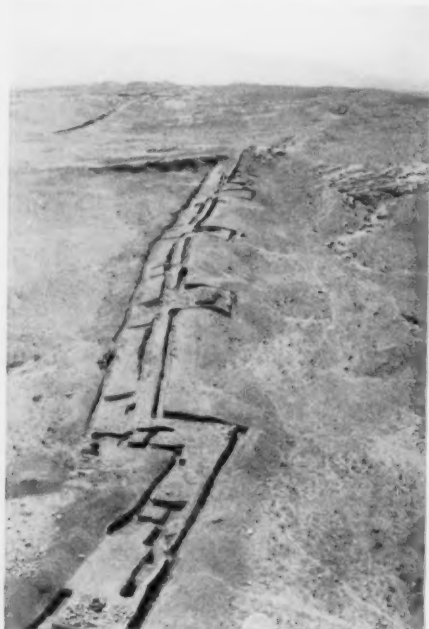


FIG. 12. INCLOSURE WALL FROM  
THE FORTRESS

dating of the lower portions of these ruins must now be reconsidered. The flat jugs (fig. 23) and the well-formed jars with red and black slips and carved ornament on the necks and shoulders (fig. 22) which puzzled us because they differed so greatly from the rest of the pottery, certainly Islāmic, that we were turning up, we now know to be Sāsānian. They were found only along the terrace walls and in the lowest levels, and these walls must have a corresponding date.

The cuts (fig. 4) on the inner slopes of the hill and the floor of the valley showed much of the area to be town. Cut 3 gave us two levels, the lower of which, like that on the

<sup>4</sup> BULLETIN, Nov., 1933, Section II, p. 44.



FIG. 13. THE SECOND DEFENSE SHOWING A ROUND TOWER



FIG. 14. THE FOOT OF THE RAMP



fortress, is better built and has rather larger rooms than the upper. But nowhere have we as yet struck any building with architectural distinction.

The hypothesis that some portion of our site might be Gird Fana Khusrau, established by 'Adud ad-Daulah (A.D. 936-982) and mentioned by Muḳaddasi, was not confirmed. We must look much further back for the beginnings of our settlement. Ibn al-

a bit overdone, Ibn al-Balkhi's description is a very suggestive one. There are scattered forts on the foothills and mounds in the flat at the east end of the plain of Shīrāz which bear him out, and it is probable that our fort is one of those he mentions.

It was under the same caliph, 'Abd al-Malik, in the year A.H. 78 that the old Sāsānian type of coin was superseded by purely Muḥammadan coins with no decora-



FIG. 15. LARGE STORAGE JAR WITH INCISED DECORATION. SCALE ABOUT 1:10

Balkhi<sup>6</sup> (early twelfth century) tells us that "In the days of the [older] Persian kings, where Shīrāz now stands was but [a townless] district with some forts lying in the open countryside. After the [Arab invasion and] the establishment of Islām, the place remained in the same desolate state till the reign of [the Omayyad Caliph] 'Abd-al-Malik [65-86 (685-705)], who appointed Ḥajjāj ibn Yūsuf his viceroy in these lands. Ḥajjāj thereupon sent his own brother, Muḥammad ibn Yūsuf, to act as his lieutenant in Fārs, of which he became later the permanent governor, and it was this Muḥammad who laid the foundations of Shīrāz." Though the stress on desolation is

tions other than Kūfic inscriptions. We found in and around the fortress about sixty silver and bronze coins ranging from one silver coin of Alexander the Great to coins of 'Ubaidullah ibn Ziyād (died A.H. 67)<sup>6</sup> and 'Umar ibn 'Ubaidullāh, who in the opinion of Thomas<sup>7</sup> is the 'Umar ibn 'Abdullāh who was governor of the province of Fārs from A.H. 67 to 71. Of the sixty coins eighteen belong to the early Arabs; twenty-five to various Sāsānian kings, including ten to Khusrau II (A.D. 590-628) and two to Ardashīr (A.D. 224-241); and eight to the Parthians (248 B.C.-A.D. 226). Some of the Sāsānian

<sup>6</sup> The Pahlavi inscriptions on these coins and on some of our seals were kindly read for us by Professor Herzfeld.

<sup>7</sup> E. Thomas, *Journal of the Royal Asiatic Society*, vol. XII (1850), pp. 301f.

<sup>8</sup> G. Le Strange, *Description of the Province of Fars* . . . from the MS. of Ibn al-Balkhi . . . (Asiatic Society Monographs, vol. XIV), pp. 35 f.

coins are surcharged with Arabic inscriptions around the edge, but we found no Arab coins of the period immediately following the coinage change of A.H. 78.

All the pottery which we found this year differs markedly from that of last year except the examples mentioned above. As Upton points out, much of it is closely related to forms found on Sāsānian sites in

thian being assigned to it. The prehistoric objects and the possibly Achaemenian bird and jasper plate all came from the west slope and cannot be connected in any way with the remains of the buildings so far uncovered.

It would seem then from the coins, the pottery, the architecture, and the seals that the bulk of the fortress is Sāsānian and that



FIG. 16. A LARGE ROOM ON TOP OF THE FORTRESS, SHOWING STORAGE JARS IN SITU

Mesopotamia as well as Persia, and some to well-known Parthian forms.

The simple architecture of the fortress, lacking as it does any decoration, can only be dated by inference from the objects found in it and by comparison with other near-by examples. The great retaining wall and the wall inclosing the well are similar to remains at Shāpūr, one of the great Sāsānian cities; and the brick walls of the second line of defense and the double stone wall of the great inclosure are very like the Sāsānian wall around Ištākhr recently partly excavated by Professor Herzfeld. The house architecture obviously is, though varied, all of a piece and there is no evidence from the objects found in the levels on top of the fortress to permit a date earlier than Par-

thian being assigned to it. The absence of any objects which can be assigned to the Arab period other than a few coins seems conclusive evidence that it fell into complete decay after the Arab conquest. The lower town, in the amphitheater, must be assigned to the same periods except for the region immediately around the Achaemenian doorways, and that, save for its terrace wall and a few near-by walls, must as we pointed out last year be placed wholly in the Islāmic era.

One of the seal impressions names the province of Ardashīr Khurre, in which Sāsānian province our ruins lay, and a town the name of which can be read as Shīrāz.

This suggests that it sealed a document belonging to that place and points to the possibility of our whole town, including the fortress and perhaps neighboring villages, being the old Shīrāz of pre-Arab days. It has happened elsewhere in Persia, for exam-

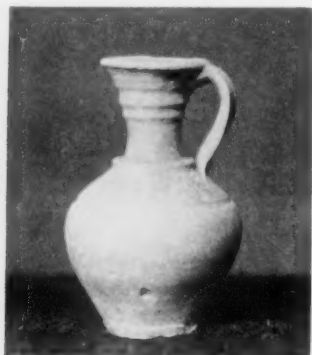


FIG. 17. UNGLAZED JUG WITH PAINTED STRIPED DECORATION. PARTHIAN (?)  
SCALE 2:5



FIG. 18. BLACK JAR  
SCALE ABOUT 1:4

ple at Nishāpūr, as it did in Cairo, that a town after some vicissitude or political change moved a little distance away from its former site and began anew, leaving its former shell to shrink to a suburb or fall into a mound of ruin. In view of Ibn al-Balkhī's information it would not be surprising if the Arabs after their victory went in A.H. 73 (A.D. 693) four miles further west in the confined Shīrāz valley and built their city, retaining for it the well-known name of the old town.

WALTER HAUSER.

#### THE SEASON'S FINDS

Since the part of the ruins at Kāsr-i-Abū Naṣr excavated by our expedition this season belongs to a period in Persian history about which information is not only scanty but confused, we felt an extra responsibility in making our records of the finds as complete as possible. Consequently we spent a great deal of our time in handling potsherds—sorting them and gluing them together and then drawing and photographing the



FIG. 19. STORAGE JAR WITH COMBED DECORATION. SCALE ABOUT 1:9

results. The jars, jugs, and bowls found intact constitute a very small part of the array of types we were finally able to assemble; most of the pottery was pieced together from fragments, of which there were frequently as many as forty baskets a day. This is explained by the fact that we were digging in a village, where most of the pottery to be found had been thrown away because it was broken or useless—circumstances quite different from those encountered in digging an early cemetery, in which objects had been placed in the graves intact.

Soon after we had started to dig on top of the fortress, we began to find large Sāsānian storage jars, in an endless variety of shapes and varying in height from two to five feet.

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We must have unearthed eighty in all during the season—usually scattered, but in one case ten large jars were discovered in a single room (fig. 16). They were invariably full of dirt when found, and although we

protruding necks covered by lids of stone or heavy pottery. The smaller ones may have stood on the floor or have been only partially buried. This ware is of a coarse gritty clay and shows a wealth of variety in



FIG. 20. UNGLAZED BOWL WITH COMBED DECORATION. SCALE ABOUT 1:6



FIG. 21. SĀSĀNĪAN UNGLAZED JAR. SCALE ABOUT 1:6



FIG. 22. RED JAR WITH INCISED AND BURISHED DECORATION. SCALE ABOUT 1:6

emptied each jar carefully, our search was never rewarded with more than a few nondescript bones of animals or birds or bits of carbonized grain. The larger jars have such thin walls and disproportionately small bases that they can only have been used buried beneath the floor of the house, the

decoration—small stylized pine trees, circles in groups or rows, wavy bands of applied pie-crust molding, series of parallel lines, curved or straight, and diamond and crisscross motives. Although no two pieces have identical patterns, the ornament is usually incised—sometimes with the use of

a comb as on the jar in figure 19, sometimes entirely free hand as on that in figure 15. Placing a small comb with from four to twelve teeth against a piece of pottery as it turns on the wheel and so forming a band or a spot of parallel incised lines is one of the simplest ways of decorating a jar or bowl.

slightly bulbous body as the glazed jars and the same tall neck with characteristic rim.

Another common type of seventh-century pottery is of buff or pinkish clay, with part or all of the bands of decoration around the neck and shoulders incised and the whole covered on the outside and over the rim to



FIG. 23. BUFF UNGLAZED JUGS. SCALE ABOUT 1:6



FIG. 24. GLAZED LAMPS, JAR, AND SMALL JUG. SCALE ABOUT 1:4

The technique is not only one of those most commonly employed on the Sāsānian pottery from Ķasr-i-Abū Naṣr, as for instance on the fine bowl shown in figure 20, but is freely used on the unglazed pottery made today in Persia. A more open incised ornament occurs in the bands on the tall two-handled jar in figure 21. We are particularly pleased to have found this jar, in spite of its fragmentary condition, since it is a Persian variation of the common blue-glazed Parthian and Sāsānian jars of 'Irāk.<sup>8</sup> It is of pinkish clay covered with a thin fawn-colored clay wash, but it has the same

the base of the inside of the neck with red, black, or gray slip. In the case of the intact jar illustrated in figure 22 there have been added to the incised lines a burnished zigzag band on the neck and vertical lines on the sides, which make the rich red slip vibrate. The profile of the neck and especially the sharp edges of the rim are characteristic of the period. Of contemporary but slightly coarser workmanship are two round, squat, unglazed jugs with handles and blunt snouts (fig. 23) identical with several discovered last season which puzzled us because they were so different from the Muḥammadan pottery we were finding.

In all the Sāsānian pottery dug up this

<sup>8</sup> One of these was found at Ctesiphon; see BULLETIN, Aug., 1932, p. 194, fig. 11.



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season there were very few glazed fragments and only four intact glazed pieces. The intact pieces, shown in figure 24, include two blue lamps, a jug of typically Sāsānian blue-green, and a curious apple-

by Professor Herzfeld in the Parthian-Sāsānian ruins at Kūh-i-Khwāja in Sīstān. In the Sāsānian ruins at Ctesiphon, however, the proportion of glazed pieces was large. The shifting of the center of government



FIG. 25A. CLAY SEAL WITH PORTRAIT BUST OF SĀSĀNIAN OFFICIAL



FIG. 26. PART OF A POLISHED BLACK STONE PLAQUE. SCALE ABOUT 7:10



FIG. 25B. CLAY SEAL WITH TWO IMPRESSIONS FROM SĀSĀNIAN CUT STONES. SCALE 1:1



FIG. 27. POLISHED JASPER PLATE SCALE ABOUT 1:4

green jar of a very dense clay which may have been used for storing scent, as it has a tiny cavity; judging from its fine, hard glaze it may be early Sāsānian or even Parthian.

The scarcity of Sāsānian glazed ware is significant in observing the culture of the Irānian plateau, since the same scarcity was noted by Dr. Schmidt at Dāmghān in northern Persia and no glazed pottery was found

may be the explanation of this difference, for although Ardashīr, the first of the significant Sāsānian kings, established himself in the province of Fārs with his capital at Gūr (modern Fīrūzābād), his immediate successors soon found it advantageous for the control of their rapidly expanding empire to rule from more accessible places. Among the new capitals they built was

Ctesiphon—directly across the Tigris from Seleucia, which had been the most flourishing and important capital of the preceding dynasties. It is inevitable that the culture brought by these new rulers from the moun-

were not a dividing line between cultures and whether the Sāsānian ruins at Susa should not be assigned to 'Irāk in spite of the fact that historically they belong to Persia. Only more material from excava-



FIG. 28. GOLD JEWELRY. SCALE ABOUT 7:10



FIG. 29. GLASS "EYE DROPPER"  
SCALE ABOUT 3:5

tains of Fārs should have been greatly modified by the more developed culture of 'Irāk, and it is not surprising that many of the finds in Seleucia, Ctesiphon, and Susa (which belongs geographically to the plains of 'Irāk) are practically identical. One is therefore strongly tempted to wonder whether the mountain ranges between the Persian highlands and the plains of 'Irāk



FIG. 30. STONE BIRD'S HEAD WITH  
INLAID EYES. SCALE 1:1



FIG. 31. ONE OF A PAIR OF GLASS DOLLS  
SCALE ABOUT 8:9

tions on the Irānian plateau can show whether our theory is a fact.

A group of pottery we believe to be earlier than seventh century, since it came from below the top level, consists of small red, black, or buff jars, which are sometimes plain and sometimes with handles like those in figure 18. Occasionally the surfaces were highly polished. Similar pots have been ob-

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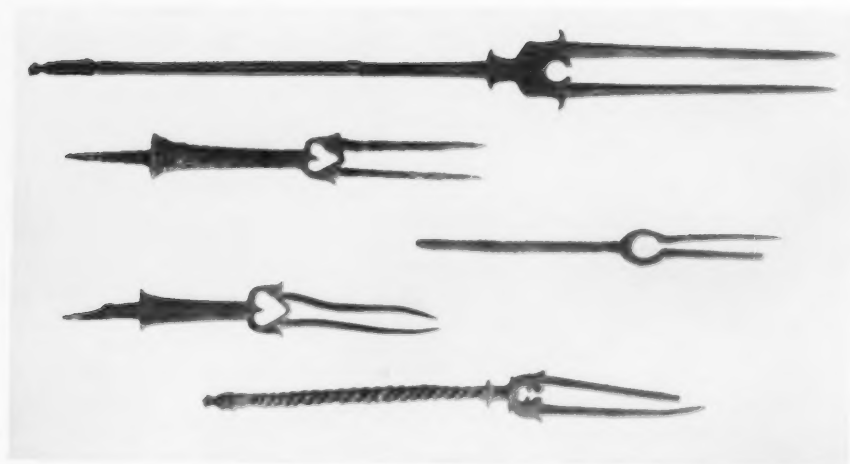


FIG. 32. BRONZE FORKS AND SPOONS. SCALE ABOUT 1:3

tained at Assur and elsewhere in Mesopotamia from Parthian ruins.<sup>9</sup> From the lowest levels on the top of the fortress and from the slopes came fragments of buff pottery painted with geometrical patterns in red or black, as well as pieces of unusually fine pottery—almost as hard and smooth as polished stone. These pieces are probably Parthian or Seleucid (330 B.C.—A.D. 226), and it seems quite likely that the small jar of buff clay in figure 17, very pre-

been destroyed by fire. Some of these seals, like that in figure 25A, have portrait busts of officials, the dignity of whose handsome profiles is increased by the heavy earrings and the caps with bands of pearls and two fluttering streamers at the back. In many cases the busts are surrounded by inscriptions giving the name or title of the person represented. There are also a large number of seals with ingenious monograms or plain inscriptions, like the lower one in figure 25B;

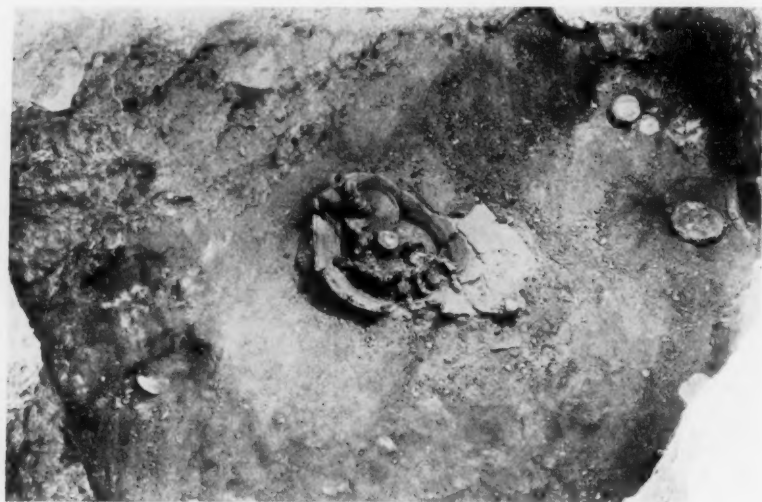


FIG. 33. BRONZE CANDLESTICK AND SEVERAL CLAY SEALS AS FOUND

cisely turned and with traces of bands of red paint around the belly and on the shoulder, is of the same period.

It is impossible within the limits of this preliminary report even to mention all the types of pottery which we have recorded. The examples discussed above have simply been selected because they belong to groups which so far have not been generally known or definitely dated. We hope to have more information for establishing dates when we have had time to study and decipher the inscriptions in Persian Pahlavi script on about five hundred clay seals, most of which we found in the ruins of two rooms that had

and these should prove a fruitful source of information. Others have animals or birds, alone or in pairs, and some have imaginary animals like the human-headed winged beast in figure 25B. This curious creature also appears on a copper coin with a Pahlavi legend reading, according to Professor Herzfeld, "the enemy of sleep or laziness."

We had hardly started work on the west slope of the fortress when a workman one evening brought in a small part of the rim of a magnificent plate of polished jasper. We told him that we must have the rest of it, so he went back the following morning and found three or four more pieces. He kept on digging in the same place for the next day and for the next day after that, carefully removing the dirt and putting it through a sieve. When he could find no

<sup>9</sup> Andrae and Lenzen, *Die Partherstadt Assur*, pl. 46 d; Sarre and Herzfeld, *Archäologische Reise im Euphrat- und Tigris-Gebiet*, pl. CXLII, 3.

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more fragments Hauser took what there were and began patiently cleaning them and piecing them together. The result is a really superb plate (fig. 27) with such a delicate profile and velvety texture that it must be handled to be appreciated. Fragments were found of two other stone objects that particularly piqued our interest, but in neither case did we succeed in finding the

Early Arab historians writing about the province of Fārs make frequent mention of the extensive use of lead. Our pieces, consisting of pins of various kinds, bowls, and



FIG. 34. BRONZE MASK  
SCALE ABOUT 5:7



FIG. 35. BRONZE HEAD OF AN  
IBEX (?). SCALE ABOUT 5:7

complete object. One is the small green head of a bird (fig. 30) with inlaid eyes of stone in three separate pieces, orange, white, and black, exquisitely cut. The other is part of a highly polished black stone plaque showing the front of what seems to be a tiger crouching beneath a tree (fig. 26). No one of these stone objects was found under circumstances which make it possible to assign a date with assurance. They are probably pre-Sāsānian—perhaps Achaemenian (550-330 B.C.), to judge from analogies of style.



FIG. 36. BRONZE SĀSĀNIAN CANDLESTICK  
SCALE ABOUT 4:15

small dishes with handles, were probably made on the spot, since we found in one room a large slab of lead ready to be cut and melted. Gold and silver were rather rare among our finds, although we did come upon a group of seventh-century gold jewelry (fig. 28): earrings, nose rings, pendants, and buttons, the two largest earrings hav-



ing genuine pearl drops. The silver objects consist of a small, simple, round bowl and various bits of jewelry.

The most common metal was iron—usually badly rusted—of which there are many knife blades, several large keys, spearheads, sickles, innumerable nails, brackets, and hooks from the woodwork of the buildings, and part of a corselet made of small plates of iron and bronze (fig. 11). The counter-parts of the iron knives may be seen in bronze or copper forks and spoons (fig. 32). All the forks have two tines, but the decora-



FIG. 37. ROCK-CRYSTAL  
HEAD. SCALE 3:2

tive treatment of the handles varies, sometimes showing, as in the case of the largest fork, what seems to be a stylized bird on the top of the handle. It is doubtful whether all the forks and spoons, particularly the three spoons resembling small soup ladles, were actually used to eat with. Some were probably used in serving. Among our other bronzes is the small "Foxy-Grandpa"-like mask in figure 34, with its striking evidence of Hellenistic ancestry. More characteristically Irānian is the head of an animal (ibex?) in figure 35, which in spite of the fact that it has lost its horns still has much strength and dignity. A small round collar at its base shows that it was originally attached to something, perhaps as a handle or as a finial on the back of a chair.

A workman hunting one day for a wall on

the top of the fortress suddenly came upon pieces of metal, which he proceeded to clear carefully for photographing; figure 33 shows them in situ. After being cleaned and put together in the house they made our finest bronze—the candlestick in figure 36 with baluster turnings and engraved rings. The piece is undoubtedly Sāsānian, as a large number of Sāsānian seal impressions came from the same room, which was one of those that had been burned.

Intact glass objects are always rare in excavations, and this season, although we have a group of fragments showing interesting patterns, we took away only about a half dozen whole pieces, one of them being a glass bottle from the room in which the bronze candlestick was found. Our most curious pieces consist of a pair of dolls, one of which is shown in figure 31. Another piece of particular interest, though not intact, as various parts are missing, including the tip of the spout, is the "eye dropper" in figure 29; several similarly shaped cups were found in the early Islāmic ruins at Ctesiphon. These three pieces are probably of the seventh century.

In another room which had been burned and from which we took many Sāsānian seal impressions was found our only example of cut rock crystal (aside from several beads and pendants)—the exquisite head in the round in figure 37. The cutting is extremely good and there are traces of color on the hair, eyes, and lips. It has been suggested that the head was on a sphinxlike body, but unfortunately the parts of the body which we have are too few to make a reconstruction possible.

The objects mentioned above are only a few of our outstanding finds. We believe that when our records are completed they will be distinctly useful to students seeking light on life in Persia in the Sāsānian period, when the country was, as so often in its history, serving as a great highroad between the Orient and the Occident.

JOSEPH M. UPTON.

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